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Describing and Understanding Factors Related to Implementing Comprehensive School Physical Activity Programs by Physical Educators

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

DESCRIBING AND UNDERSTANDING FACTORS RELATED TO
IMPLEMENTING COMPREHENSIVE SCHOOL PHYSICAL
ACTIVITY PROGRAMS BY PHYSICAL EDUCATORS

A Dissertation Submitted in Partial Fulfillment
of the Requirements of the Degree of
Doctor of Philosophy

Catherine Price Berei

College of Natural and Health Sciences
School of Sport and Exercise Science
Sport Pedagogy

May 2015

This Dissertation by: Catherine Price Berei

Entitled: *Describing and Understanding Factors Related to Implementing Comprehensive School Physical Activity Programs by Physical Educators*

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College of Natural and Health Sciences in School of Sport and Exercise Science,
Program of Sport Pedagogy

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ABSTRACT

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Recent recognition related to the importance of physical activity participation in living a healthy lifestyle (Centers for Disease Control and Prevention [CDC], 2010b; Physical Activity Guidelines Advisory Committee, 2008), as well as the rise in obesity rates (Ogden, Carroll, Kit, & Flegal, 2012), and physical inactivity (Council on Sports Medicine and Fitness and Council on School Health, 2006) has led to increased attention to the physical activity levels of children. In response, the Comprehensive School Physical Activity Program (CSPAP) model (American Alliance for Health, Physical Education, Recreation, and Dance [AAHPERD], 2011b; CDC, 2013) and a “whole-of-school” approach (Institute of Medicine, 2013) have been promoted in an attempt to help individuals work towards achieving physical activity recommendations (CDC, 1997; National Association for Sport and Physical Education [NASPE], 2008). Physical educators are the most likely to be CSPAP leaders in school settings (Carson, 2012), yet a paucity of research examines their viewpoints. Examination of 17 physical educators’ perspectives of and factors related to implementing CSPAPs revealed that, though they were implementing CSPAP model components that met the unique needs of schools, there was little knowledge of the CSPAP model. Reasons for implementing CSPAPs focused on teaching lifelong skills with 8 elements facilitating and challenging the

CSPAP implementation process. While all CSPAP components play important roles in providing physical activity for all members of a school and community, the question remains, “Does a “whole of school” physical activity program necessarily have to include activities in all five areas within the CSPAP model?” What may be more important than adhering to the CSPAP model was the concept of building school culture and providing opportunities for physical activity with goals related to encouraging healthy, active lifestyles within individual schools and communities. Physical activity promotion in school settings has not been a new concept; therefore, the importance of school personnel embracing the concept of “whole-of-school” physical activity programs (Institute of Medicine, 2013), or adhering to a more prescriptive CSPAP model should be examined. Research should continue to examine physical activity programs, as well as identify facilitators and challenges to program implementation and policies in school settings.

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CHAPTER I

INTRODUCTION

During the 1980s and 1990s, significant increases in the prevalence of childhood and adolescent obesity were seen (Ogden et al., 2012). Two major contributors to this trend included nutritional factors and a decrease in the expenditure of energy, which could have been due to a lack of physical activity and an abundant amount of time spent participating in sedentary activities (Council on Sports Medicine and Fitness and Council on School Health, 2006). In 1996, the landmark report, *Physical Activity and Health: A Report of the Surgeon General*, acknowledged a national crisis in health recognizing physical activity as central to public health (U.S. Department of Health and Human Services [USDHHS], 1996). The report stated, “regular participation in moderate physical activity is an essential component of a healthy lifestyle” (Centers for Disease Control and Prevention [CDC], 1997, p. 1).

Although it is unknown if physical activity and physical education recommendations from national organizations have made an impact on childhood obesity in the United States, the percentages of childhood obesity remain steady at 17.0%, with no significant changes from 2003-2004 to 2011-2012, and a slight decrease from 14.0% in 2003-2004 to 8.0% in 2011-2012 in the prevalence of obesity among children aged 2 to 5 years (Ogden, Carroll, Kit, & Flegal, 2014). “Although the prevalence of obesity in the United States is high, with one-third of adults and 17.0% of children obese, it appears to have leveled off between 2003-2004 and 2009-2010” (Ogden et al., 2014, p. 806).

Despite the tentative plateau of childhood obesity levels, it is necessary that various strategies and opportunities for physical activity be explored and applied to continue the leveling of obesity trends, and even begin to decrease the prevalence of obesity in children and adolescents in the United States.

Due to the increased trend in childhood obesity, as well as changes in nutrition and physical activity levels, several national organizations have released additional documents providing evidence supporting the need for a change in how Americans were living their lives (CDC, 2010a, 2011; Institute of Medicine, 2013; USDHHS, 2000, 2008, 2012). They emphasized the implementation of programs to assist change that have the potential to positively impact the education and behaviors of Americans relating to physical activity and health. These documents recommend that children and adolescents accumulate a minimum of 60 minutes of moderate to vigorous physical activity (MVPA) on all, or most days of the week (CDC, 1997; Fuller, Sabiston, Karp, Barnett, & O'Loughlin, 2011; National Association for Sport and Physical Education [NASPE], 2008; NASPE & American Heart Association [AHA], 2012; Pate, Yancey, & Kraus, 2010; Rink, Hall, & Williams, 2010; USDHHS, 2008). According to the *2013 Youth Risk Behavior Surveillance Report*, 15.2% of high school students did not participate in at least 60 minutes of MVPA on any day during the 7 days before the survey, which had not changed significantly from the 2011 report of 13.8%. In addition, despite the recommendation to participate in 60 minutes of MVPA per day, only 27.1% of high school students were physically active for at least 60 minutes per day on all 7 days before the survey, which also had not changed significantly from the 2011 report of 28.7% (CDC, 2014). According to the 2014 U.S. report card on physical activity, only about

25.0% of children and adolescents ages 6 to 15 were at least moderately active for 60 minutes per day on at least 5 days per week (National Physical Activity Plan Alliance, 2014). The Council on Sports Medicine and Fitness and Council on School Health (2006) stated, “children and youth spend most of their waking hours at school, so the availability of regular physical activity in that setting is critical” (p. 1836). Physical education has the potential to be one opportunity for students to be physically active during the school day. The Society of Health and Physical Educators (SHAPE America) has recommended a minimum of 150 minutes per week of total physical education instruction time for elementary level students and a minimum of 225 minutes per week of total physical education instruction time for middle and secondary level students (NASPE, 2011; NASPE & AHA, 2012). Despite these physical education recommendations, policies surrounding physical education have revealed a picture that has not supported physical activity. At the elementary level, only 31.0% of schools in the United States specified a minimum time students must participate in physical education (NASPE & AHA, 2012). Only three states required the recommended 150+ minutes per week, but it was unclear if these states were actually meeting this requirement (NASPE & AHA, 2012). At the middle school level, only 35.0% of schools in the United States specified a minimum time students must participate in physical education, and only three states required the recommended 225+ minutes per week; it was unclear if these states were actually meeting this requirement (NASPE & AHA, 2012). Eighty-six percent of schools at the high school level had a state mandate requiring them to provide students with physical education, but the required minutes per week, as well as if states were meeting this mandate were vague (NASPE & AHA, 2012). According to the *2012 Shape of the Nation*

Report, 48.0% of students did not attend physical education classes in an average week when they were in school and 69.0% of students did not attend physical education classes daily when they were in school (NASPE & AHA, 2012).

Regular participation in physical activity yielded many benefits for children and adolescents including: improvements in cardiorespiratory fitness and muscular strength; reduced the risk of developing obesity and chronic diseases such as diabetes, cardiovascular disease, and colon cancer; increased in bone mineral content and density with bone-loading physical activity; and increased favorable effects of several mental health outcomes, such as symptoms of anxiety and depression, self-esteem, and physical self-concept (Physical Activity Guidelines Advisory Committee, 2008). Research (Castelli, Hillman, Buck, & Erwin, 2007; CDC, 2010b) also indicated physical activity participation had many benefits related to the academic performance of children and adolescents. These benefits included improvements in academic performance and grades, academic behavior, such as time on task, and other factors that played a role in academic achievement, such as attentiveness and concentration (CDC, 2010b). Most importantly, providing children and adolescents with opportunities to be physically active, teaching them how to be physical active, and forming healthy, physically active lifestyle habits at a young age are essential because, as children and adolescents increase in age, their participation in physical activity declines (CDC, 2014).

In an attempt to reduce the decline of physical activity as age increases and encourage all children and adolescents to participate in physical activity so they can gain from the benefits, several organizations such as the Society of Health and Physical Educators (NASPE, 2013) , the Centers for Disease Control and Prevention (CDC; 2013),

and the U.S. Department of Health and Human Services (USDHHS; 2012), have introduced the “comprehensive school physical activity program” (CSPAP), also described as a multi-component school-based intervention, as a way to implement organized and planned physical activity opportunities in all preK through 12 schools and communities. The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* concluded “school and community programs have the potential to help children and adolescents establish lifelong, healthy physical activity patterns” (CDC, 1997, p. 1). Furthermore, in an attempt to provide the most up-to-date information and guidelines based upon research conducted on school-based obesity prevention, and physical activity promotion and intervention, the Centers for Disease Control and Prevention (2011) released the *School Health Guidelines to Promote Healthy Eating and Physical Activity*. Guideline four of this document, titled “Implement a Comprehensive Physical Activity Program with Quality Physical Education as the Cornerstone,” specifically provided research supporting CSPAPs and effective strategies to provide children and adolescents with a variety of physical activity opportunities. Siedentop (2009) stated,

It is difficult to imagine that the education sector can play a significant role in the national effort to stem the child/youth obesity crisis and the long-term health costs associated with this crisis unless it takes more seriously the development of high-quality physical activity programs and opportunities throughout the preK-12 system, including physical education, recess, classroom activity breaks, and after-school programming. Students need to be educated about the importance of physical activity in their lives, to develop the skills necessary to enjoy physical activity, to have ample opportunities throughout the school day to be physically active, and to have those experiences be so satisfactory that they come to so value the importance of physical activity in their lives that they are motivated to be physically active during discretionary time. (p. S177)

If implemented well, CSPAPs could provide children and adolescents with a substantial amount of time during the day to reach the 60-minute recommendation for MVPA (CDC, 2011).

A growing body of research from the public health sector suggested interventions implemented within a school setting could increase physical activity for children and adolescents (Ewart, Young, & Hagberg, 1998; Harrell, McMurray, Gansky, Bangdiwala, & Bradley, 1999; McKenzie et al., 1996; Parcel, Simons-Morton, O'Hara, Baranowski, & Wilson, 1989; Sallis et al., 1997; Simons-Morton, Parcel, Baranowski, Forthofer, & O'Hara, 1991). These studies supported multiple intervention strategies incorporating various health components, including changes to classroom health education and food service (Parcel et al., 1989; Simons-Morton et al., 1991) and increasing physical activity in both physical education and the regular classroom (Ewart et al., 1998; McKenzie et al., 1996; Sallis et al., 1997). McKenzie et al. (1996) determined overall results of these school-based intervention studies “confirm that an intervention in the existing school environment can promote an increase in the amount of moderate-to-vigorous physical activity children engage in during class time” (p. 430).

In addition to physical education and classroom-based physical activity, intervention strategies to include recess during the school day have found “recess can contribute toward children and adolescents meeting physical activity guidelines” (CDC, 2010a, p. 3). An additional strategy to provide physical activity for children was the opportunity to be active during after-school programs. Beets, Wallner, and Beighle (2010) found after-school programs could provide opportunities for physical activity that could help students meet the recommended amount of daily physical activity. The

implementation of these interventions supported positive results for increases in physical activity when the interventions included individual components of a CSPAP, or a combination of physical education and classroom-based physical activity. There was growing evidence for successful increases in physical activity from these individual program components, however, further investigation of the strategies and factors related to effective and successful program implementation has the potential to add to the awareness and popularity of these programs in schools and to provide students with increased opportunities for physical activity so they could reap the many health benefits of physical activity participation.

The organization and implementation of a CSPAP has been placed on the shoulders of the “physical activity expert” within a school or district, and typically the physical education teacher was ideal for this role. Graham et al. (2013) stated,

While everyone in the school needs to be united in the goal of daily physical activity for all children, it is the physical education teacher’s role to take the lead, to design and/or coordinate the programs of physical activity. Our role as teachers expands to include not just our physical education curriculum, but also programs of physical activity in our schools, homes, and communities. The physical education teacher thus becomes the school’s ”Physical Activity Director” as well as the teacher of physical education, designing comprehensive programs of physical activity for both within and beyond the school day. (p. 567)

It was clear that the role of the physical education teacher was changing, and it was now the responsibility of the physical education teacher, as the physical activity director within the school and community, to coordinate and implement CSPAPs (Carson, 2012). Very little research has explored the perspectives and concerns of practitioners, both physical educators and classroom teachers, related to the implementation process, maintenance, and sustainability of physical activity programs and policies in schools; and more research has been needed from the perspectives of

those directly affected by these programs and policies (Collins, Lane, & Stevens, 2003; Dusenbury, Brannigan, Falco, & Hansen, 2003). In addition, research examining the implementation process of CSPAPs and the role of physical activity leaders in K-12 schools from physical educators' perspectives has just begun to emerge. Due to the need for physical activity opportunities for children and adolescents and the changing role of physical educators in K-12 school settings, there has been a need for information from the perspectives of physical educators regarding how changes were going to be made to effectively implement and maintain CSPAPs in school and community settings.

Purpose of Study

The promotion of the CSPAP and “whole-of-school” physical activity programs have encouraged physical activity opportunities in a variety of ways and for a variety of populations in school settings. This emphasis on promoting physical activity and providing physical activity opportunities has changed the role of the physical educator in school settings, yet there has been little existing research regarding the perspectives of physical educators related to these changing roles. In addition, research related to the physical activity program implementation process, including facilitators and challenges, has begun to emerge but has still been scarce. The purpose of this study was to examine physical educators' perspectives of and factors related to the implementation of comprehensive school physical activity programs and their roles as physical activity directors.

Research Questions

The intent of this study was to explore potential phenomenon that existed within a group of physical educators across multiple grade levels (K-12) regarding their

knowledge and implementation of components within a comprehensive school physical activity program. In order to do so, the following research questions guided the study:

- Q1 What knowledge do physical educators have about comprehensive school physical activity programs?
- Q2 What are the perspectives of physical educators regarding the implementation of comprehensive school physical activity programs?
- Q3 What factors influence, guide, and hinder the implementation of comprehensive school physical activity programs by physical educators in K-12 schools?

Significance of the Study

Despite the overwhelming amount of literature related to the promotion and implementation of CSPAPs, very little research has explored the perspectives of physical educators on these programs and their potential role as the director of physical activity in school and community settings. While some research has showed the way in which a program was implemented affected the outcome of the program (Dusenbury et al., 2003), very few studies have focused on the implementation process (Larsen, Samdal, & Tjomsland, 2013) and instead, have executed and studied the outcomes of interventions implemented in school settings. Therefore, it was important to examine the perspectives of those who could potentially be coordinating and implementing components of a CSPAP in schools to determine which components of the program they already provided, the implementation process, and the factors that influenced, guided and hindered this process in K-12 school and community settings.

In addition, there was little research regarding teachers' perspectives, thoughts, and concerns about the position of director of physical activity in school settings. Rink (2012) stated,

Even though the most likely professional to lead this program [CSPAPs] is the physical educator, most physical educators do not see directing the comprehensive school physical activity program as their responsibility, nor are they trained to provide this kind of leadership. (p. 15)

It may be likely that physical educators could be expected to fulfill the role of the physical activity director in addition to their role as the physical education teacher (Carson, 2012; Graham et al., 2013), yet their perspectives about this additional role in schools has yet to be identified. Siedentop (2009) stated, “research is needed to assess the degree to which school-based physical education and physical activity programs aim to and are successful in influencing students to become and stay active in discretionary time outside of school” (p. S176). Yet, prior to assessing the programs themselves, research has been needed on the quality of the leadership and the perspectives of those who could be implementing these programs. If researchers in the field could understand how physical educators implement effective and successful CSPAPs, this information could be beneficial in promoting and increasing the quantity and quality of CSPAPs within school and community settings.

Second, this study explored the reasons why physical educators implemented one or more components of a CSPAP. An abundant amount of literature existed describing effective and successful strategies for interventions concerning physical activity in school settings; however, a gap in the literature directly relating to why physical educators did or did not implement these programs existed. This study specifically addressed the influences, guideposts, and roadblocks encountered by those physical educators who did and did not implement physical activity programs in addition to teaching physical education. Knowledge regarding why physical educators implemented one or more components of CSPAPs, as well as what helped and hindered physical educators in

providing physical activity opportunities would assist administrators, physical education teacher education faculty, and other physical educators in promoting and implementing successful and effective CSPAPs.

Last, Carson (2012) reported, “to date, South Carolina is the only state with legislation requiring elementary schools to designate a DPA [director of physical activity], who is charged with directing school-based physical activity opportunities beyond physical education” (p. 17). According to the *Comprehensive School Physical Activity Program (CSPAP) Policy Continuum* (American Alliance for Health, Physical Education, Recreation and Dance [AAHPERD], 2012) similar legislation was very close to passing in an additional 22 states; therefore, the potential for the physical activity director position to become a state policy was foreseeable. Understanding why physical educators provided physical activity opportunities in addition to teaching physical education would assist administrators, physical education teacher educators, and physical educators in adhering to the state policy and implementing CSPAPs that have the potential to be effective and successful in promoting physical activity for children and adolescents.

CHAPTER II
REVIEW OF LITERATURE
Rationale for Physical Activity
Programs in Schools

Around the year 2000, overweight and obesity were identified as a critical health risk that was reaching an epidemic level by leading health organizations such as the U.S. Department of Health and Human Services, the Institute of Medicine, and the Centers for Disease Control and Prevention. Research indicated:

Children in the 21st century spend less time playing outdoors, have fewer playmates from less diverse backgrounds, a more restricted range in which they can move freely, spend increasing time with electronic media indoors, have increased engagement in structured activities managed by adults, and are less likely to walk or cycle to school. (Siedentop, 2009, p. S169)

At the 2002 Healthy Schools Summit, an initiative entitled the Action for Healthy Kids (AFHK) was launched to improve nutrition and increase physical activity in schools, and included a partnership of more than 60 national organizations and government agencies that represented education, health, fitness, and nutrition. In an attempt to decrease the number of obese children and adolescents in the U.S., Congress turned to the Institute of Medicine to develop an action plan. In 2004, the Institute of Medicine released a report titled *Preventing Childhood Obesity: Health in the Balance* which explained the causes and influences on overweight and obesity and included strategies for change in the following areas: federal, state, and local governments; industry and media;

health care professionals; community and nonprofit organizations; state and local education authorities and schools; and parents and families. Two of the recommendations within the report focused on schools, including an increase in the opportunities for physical activity both during and after-school, and to develop and implement programs for staffing and teaching about wellness, healthful eating, and physical activity (Rink et al., 2010). Siedentop (2009) stated, “schools have a long history of addressing the health of children/youth . . . thus it is not surprising that the education sector is now called upon to address the overweight/obesity epidemic among children/youth” (p. S168).

Federal legislation passed in 2004 required the development and implementation of wellness policies for all school districts with federally funded school meal programs. The Child Nutrition and WIC Reauthorization Act of 2004 also required schools to encourage student wellness by setting goals in areas such as physical activity, nutrition education, campus food provision, and other school-based activities. One of the goals of the wellness policies was to increase school-based opportunities for physical activity (NASPE, 2008; Rink et al., 2010; Siedentop, 2009). According to the AFHK report in 2008, only 54.0% of local school districts were actually meeting the minimum federal requirements. Data indicated that most states were making some effort to aid districts, but the initiation of new wellness and physical activity programs in schools had been a very slow process (Rink et al., 2010).

Pate, Yancey, et al. (2010) believed “that the government by issuing the *Physical Activity Guidelines for Americans* [in 2008], has established physical activity as a major societal health target for the 21st century” (p. 210). Despite the publication of reports that addressed the problems and made recommendations to reverse the current trend of the

obesity and overweight epidemic in the U.S., many children and adolescents did not meet the recommended amount of physical activity (CDC, 1997). Research indicated that when young people transition into high school, university, or the job market, moderate and vigorous physical activity declined dramatically (CDC, 1997; Fuller et al., 2011; Rink et al., 2010). Fuller et al. (2011) found that secondary school and adolescent participants reported a decrease in physical activity levels between the ages of 13 and 20 years. This age-related decline in physical activity could be slowed by implementing a comprehensive school health program, which could help children establish lifelong, healthy patterns related to physical activity (CDC, 1997).

Health related physical activity behaviors and habits are established during childhood and adolescence (CDC, 1997). The U.S. Department of Health and Human Services (as reported by Rink et al., 2010) stated, “children and adolescents who are overweight are more likely to be overweight or obese as adults” (p. 4). To be more specific, Siedentop (2009) reported that children who left grade 3 overweight or obese were likely to remain overweight or obese into adolescence and adulthood. This indicated that the preK through third grade years were the most important, and resources should be focused on this age group.

Rink et al. (2010) reported, “the lack of physical activity is a multidimensional problem, associated with changes in our lifestyles, changes in school policies, and changes in the communities in which we live” (p. 4). The Centers for Disease Control and Prevention conducted a study in 2006 titled “School Health Policies and Programs Study (SHPPS)” and results indicated that, in order to enhance physical education and physical activity in schools, a comprehensive approach needed to be implemented at the

state, district, and school levels (CDC, 1997; NASPE, 2008). Pate, Sallis, et al. (2010) also found a multi-level intervention approach was necessary due to the public health shift towards an environmental focus when promoting physical activity. In the past, physical activity interventions have been focused on the individual; however, the new environmental focus has related more to internal operation and external work within the community and community level interventions. The Centers for Disease Control and Prevention (2010a) explained that in order to gain policy support and environmental support so that Americans could be physically active with ease, a variety of groups each played a vital role. These groups included state officials, health professionals, nonprofit organizations, urban planners, parks and recreation representatives, school staff, transportation officials, and community members (Rink et al., 2010). “When these groups work together, their efforts can increase the number of Americans who live healthier lives by creating communities that support and encourage physical activity” (CDC, 2010a, p. 1).

The Centers for Disease Control and Prevention (2010a) had a goal to increase physical activity among all Americans. This goal was “supported by key strategies such as creating or enhancing access to places for physical activity, enhancing physical education and activity in schools and physical activity in child care settings, and supporting urban design, land use, and transportation policies” (p. 1). Based on 2010 results within the Centers for Disease Control and Prevention’s *State Indicator Report on Physical Activity*, 89.4% of middle and high schools within the U.S. allowed children and adolescents to use physical activity facilities and only 50.0% of U.S. children and adolescents had parks, community centers, and sidewalks in their neighborhood. In

addition, there was a strong need for physical activity opportunities and education to be encouraged and enhanced during the school day because only 20.0%-45.0% of recess time offered to children was spent participating in physical activity (Beighle, Morgan, Le Masurier, & Pangrazi, 2006). The National Association for Sport and Physical Education (2008) explained that preK through 12 schools were encouraged to fulfill “strong leadership roles in the education and promotion of physical activity among children” (p. 1). In an attempt to fulfill this role, the Society of Health and Physical Educators (formerly AAHPERD) and the Centers for Disease Control and Prevention recommended that a CSPAP be implemented in all preK through 12 schools. Schools had the potential to provide widespread access to opportunities, offered a high number of opportunities for learning and participation, and played an important role in helping to meet national health-related physical activity goals and objectives (McKenzie et al., 1996; Sallis et al., 1997). The Centers for Disease Control and Prevention (2010a), Fuller et al. (2011), Pate, Yancey, et al. (2010), and Wechsler, Devereaux, Davis, and Collins (2000) reported that schools were ideal and critical places to promote physical activity and implement daily physical activity for children and adolescents. “Virtually every community has a school” (Ryan & Beighle, 2010, p. 22) and during the typical school day, physical education, recess, and outside of school, such as before or after-school, were three distinct physical activity opportunities for children (Beighle et al., 2006). Beighle et al. (2006) explained:

Recess and outside of school physical activity opportunities are considered discretionary periods because children are able to make some choices about their participation in activities. Physical activity participation during discretionary periods has the potential to make a significant contribution to children’s overall activity levels because children are exposed to these times on a daily basis. (p. 516)

Pate, Yancey, et al. (2010) stated, “most recent studies have targeted organizational policies and practices, with physical education, recess, and in-class activity in subject area classes as the 3 main targets for intervention” (p. 214). More importantly, schools had the potential to reach a variety of populations including those of low-socioeconomic status and diverse ethnic backgrounds (Fuller et al., 2011; Pate, Yancey, et al., 2010).

This was especially important because physical activity participation was higher in white girls than in ethnic minority groups, and girls in a higher socioeconomic group were more active than girls in a lower socioeconomic group (Pate et al., 2006). Findings by McKenzie et al. (1996) indicated elementary school-aged boys reported more physical activity participation than girls, which was consistent with literature relating to gender differences and physical activity participation. They concluded:

Gender differences in physical activity engagement may be influenced by sociocultural beliefs and expectations. School physical education programs may play an important role in reducing gender differences in physical activity engagement, such as by providing more equitable opportunities for engagement in health-related physical activity at school and promoting the development of skills and attitudes that encourage both males and females to make physical activity a regular part of their lifestyle. (McKenzie et al., 1996, p. 430)

Overall, “helping children increase their physical activity is part of the solution to the obesity challenge. Since children spend much of their days in school, it is important that schools find ways to get children up and moving” (Ryan & Beighle, 2010, p. 25). In order to do this, it was essential researchers determine successful ways for schools to improve physical activity opportunities during the school day (Larsen et al., 2013).

Changes in the Status of Physical Education and Physical Activity

The Centers for Disease Control and Prevention (2010a) recommended elementary students receive 150 minutes per week of physical education. The 2002 No

Child Left Behind national legislation has forced schools across the United States to find new ways to increase the amount of time spent on the academic portion of the curriculum (Rink et al., 2010; Siedentop, 2009). Schools have done so by decreasing the amount of time for the so-called nonacademic areas, such as physical education and other subject areas that were not a part of the “core” curriculum. Siedentop (2009) reported that physical education time has decreased by 35.0% and recess time has decreased by 28.0% due to the implementation of No Child Left Behind. According to the American Association for the Child’s Right to Play (as reported by Siedentop, 2009), nearly 40.0% of schools in the U.S. had modified, deleted, or were considering deleting recess from the daily elementary school schedule. The increase in obesity levels in children and adolescents could be partially associated with this reduced amount of physical education, recess, and physical activity time. Recent trends indicated, “as physical education time has decreased, obesity levels in students have increased” (Rink et al., 2010, p. 6).

Despite these decreases in physical education and recess time, policy-makers and administrators were attempting to increase physical education and physical activity awareness and requirements in school settings. The School Health Policies and Programs Study (SHPPS) was a comprehensive study of U.S. school health policies and programs at the state, district, and school levels. Most recent data indicated the following changes related to physical education (PE) occurred from 2000 to 2006: an increase from 59.2% to 76.0% of states that required or encouraged districts to follow national standards or guidelines for physical education; an increase from 65.6% to 81.4% of districts that required or encouraged schools to follow national standards or guidelines for physical education; an increase from 82.6% to 93.3% of districts that had adopted a policy

mandating or recommending elementary physical education; an increase from 51.5% to 64.7% of states that required physical education teachers to have an undergraduate or graduate degree in physical education; and no significant increase or decrease in the percentage of schools that met the National Association for Sport and Physical Education weekly recommendation of 150 minutes of elementary physical education and 225 minutes of middle and high school physical education. Changes related to physical activity from 2000 to 2006 indicated: an increase from 46.3% to 57.1% of districts that required regularly scheduled recess; an increase from 25.5% to 38.5% of districts that required a minimum of 30 minutes of daily recess; and an increase from 19.2% to 36.5% of districts that wrote policies not allowing exemption from recess for behavior issues (Rink et al., 2010).

Recommendations and Benefits of Physical Activity

“Regular physical activity is essential to the growth and development of children and adolescents” (Rink et al., 2010, p. 6). A minimum of 60 minutes of accumulated MVPA on all, or most days of the week was recommended for all children and adolescents (CDC, 1997; Fuller et al., 2011; NASPE, 2008; Pate, Yancey, et al., 2010; Rink et al., 2010). Research indicated the benefits of abiding by this recommendation included improvements in aerobic endurance and muscular strength; decrease in the risk factors associated with cardiovascular disease such as body mass index, blood lipid profiles, and resting blood pressure (CDC, 2010a); decrease in blood pressure in adolescents with borderline hypertension; decrease in the degree of overweight among obese children; and increase in physical fitness levels in obese children (Rink et al., 2010). Evidence also showed that children and adolescents who had higher levels of

physical activity also had better measures of wellness, higher levels of self-esteem and self-concept, stronger self-image and body-image, and lower levels of anxiety and stress (CDC, 1997; Siedentop, 2009). Last, bone mass density could be increased in children and adolescents by participating in weight-bearing physical activity and exercises (CDC, 1997; Rink et al., 2010). When bone mass density was increased and children and adolescents had a higher bone mass, they were less likely to have problems, such as osteoporosis, later in life (Rink et al., 2010).

Physical activity was associated with the social and emotional well-being of children and adolescents, and play had a vital role in the development of human behavior. Research supported improvements in a child's ability to participate in activities later in life when the motor skills that were learned through play were learned early in life (Rink et al., 2010). Rink et al. (2010) also reported "physical play is a critical contributor to the development of children's social skills and the well-being of adults" (p. 6). Children were deprived of the opportunity to develop these social skills, as well as the opportunity to be physically active, when elementary schools eliminated recess, and when home environments were not conducive to, or did not allow children to play in unstructured environments. The lack of play opportunities for children could result in socially and emotionally deprived children, which would affect the transition into adolescence and adulthood (Rink et al., 2010).

As more research was conducted to establish a link between physical activity and academic achievement, evidence was emerging that not only supported that physical activity enhanced cognitive functioning, but time spent in increased physical activity during the school day improved academic performance (Rink et al., 2010; Siedentop,

2009). Using a statewide standardized knowledge and skills test, positive associations have been found between health-related physical fitness, specifically cardiovascular fitness and body mass index, and academic performance. In addition, middle school grades demonstrated stronger associations between health-related physical fitness and academic achievement (Welk et al., 2010). A meta-analysis synthesizing literature from 59 studies related to physical activity and children's academic achievement and cognitive outcomes concluded, "physical activity has a significantly positive impact on children's cognitive outcomes and academic achievement" (Fedewa & Ahn, 2011, p. 530). Physical activity programs and interventions that had the greatest impact on children's cognitive outcomes were physical activity interventions with a specific focus on aerobic exercise, regular physical education programs, and perceptual motor training (Fedewa & Ahn, 2011). Barriers to learning, such as inattentiveness and misbehavior, could be mediated by classroom physical activity (NASPE, 2008; Rink et al., 2010; Siedentop, 2009). Rink et al. (2010) report:

Beginning research with adolescent-aged students also indicated that students who participated in vigorous activity for at least 20 minutes three times a week had higher grades. Higher grades are attributed to the increased attention that students have when they are not bored and not forced to spend an entire day in sedentary activities. (p. 7)

Research indicated, "adequate levels of physical activity improve cognitive function, and that MRI results show a positive dose-response between physical activity levels and frontal-lobe brain activity, an important area for executive functioning" (Siedentop, 2009, p. S169). Last, Fedewa and Ahn (2011) found regardless of who directed a physical activity program or intervention (e.g., parental modeling, teacher modeling, or other school personnel) and regardless of internal (to the child) and environmental variables,

when children engaged in physical activity, better cognitive and achievement outcomes were seen. Research in these areas was just beginning and more research was necessary on the association between physical activity, health, and academic achievement for children and adolescents (CDC, 1997; Fedewa & Ahn, 2011; Rink et al., 2010).

Factors Influencing Physical Activity

There were many factors that positively influenced adolescent physical activity participation on an individual level. These factors included confidence of individual ability to participate in exercise, individual physical or sport competence perceptions, positive attitudes towards physical education, and enjoying physical activity (CDC, 1997; Rink et al., 2010; Siedentop, 2009). The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* stated, “for both young people and adults, knowledge about how to be physically active may be a more important influence on physical activity than is knowledge about why to be active” (CDC, 1997, p. 14). Perceived benefits, including excitement and having fun (CDC, 1997; Siedentop, 2009); learning and improving skills; staying in shape; improving appearance; and increasing health-related physical fitness were also positively associated with an increase in physical activity participation in adolescents. When activities in community sports and recreation programs were not fun, were too competitive, or were too time consuming, children and adolescents discontinued their participation within the program (CDC, 1997).

There were three types of environmental factors that may have played a role in influencing the participation in physical activity by children and adolescents: social, institutional, or physical. The social environment included social support, role modeling,

persuasion, and social norms from sources such as peers, family, or mass media. The institutional environment included rules or policies established by institutions to which students belong, such as governments, schools, and clubs. The physical environment included climate, topography, and physical structures of a community, which included facilities, schools, and services (Wechsler et al., 2000).

Factors that positively influenced adolescent physical activity participation included interpersonal and environment factors such as peer support and participation in physical activity (CDC, 1997; Siedentop, 2009). “Beyond third grade, peer influence is often the strongest influence [of physical activity participation]. Therefore, it would be instrumental to engage students in motivating peers and family members to be physically active and to eat healthy” (Rink et al., 2010, p. 40). Welk (1999) also found key variables influencing the physical activity of children included parental involvement, such as family walks and playing catch; parental facilitation, such as providing access to facilities or equipment; and parent role modeling of an active lifestyle.

On an environmental level, many communities had schools that could have been used as a physical activity resource. Physical activity participation among children and adolescents within the community may have been enhanced when they were provided with indoor and outdoor facilities to use for physical activity. Recent studies have shown that when there was no access to opportunities for physical activity outside of school, children and adolescents were less likely to be as physically active as those who did have access to opportunities for physical activity (CDC, 2010a; Rink et al., 2010; Wechsler et al., 2000). “At least one study shows that by increasing access to places for physical activity, youth not only have higher levels of physical activity, but are less likely to be

overweight or obese” (CDC, 2010a, p. 3). Students were influenced to become and stay active when schools had attractive indoor and outdoor facilities for physical activity and support for physical activity from school staff (Siedentop, 2009). In addition, the design of the community could play an important role in providing physical activity opportunities for children and adolescents; they were more likely to walk to school, thus, increasing their physical activity levels, when schools were well located with safe sidewalks and pedestrian-friendly street crossings (CDC, 2010a).

When teachers, coaches, or other school and community personnel used or withheld physical activity as punishment, it could create negative associations with physical activity. When physical activity was withheld from students as punishment, they were not given the opportunity to gain the important health benefits that physical activity had to offer (CDC, 1997; Wechsler et al., 2000). Schools should have established policies that disallowed teachers from withholding students from recess or other physical activity opportunities based upon behavior or incomplete class work (Rink et al., 2010). Wechsler et al. (2000) provided alternative suggestions for disciplinary action instead of the use of physical activity, which included time-outs, behavior contracts, letters to parents, and contacting the principal.

Benefits of School-Based Physical Activity Programs and Interventions

Adults should have provided appropriate opportunities for children to be active so they grew and developed physically, mentally, socially, and emotionally, as well as established the skills and aspiration for a lifetime of physical activity (Rink et al., 2010), and they could reap the benefits of a physically active lifestyle. The Guide to Community Preventive Services assisted the public in choosing programs and policies to enhance

overall health and prevent disease in a variety of health-related areas. The guide provided information on effective program and policy interventions, community-specific and appropriate interventions that were effective, and the cost and return on investment for effective interventions. Community guide information was based upon research using systematic reviews of current study findings related to specific topics (Guide to Community Preventive Services, 2013).

Based upon systematic reviews of the literature related to physical activity interventions, the Guide to Community Preventive Services (2012) recommended three major intervention approaches that have been effective in decreasing physical inactivity in a variety of populations: (a) campaigns and informational approaches, (b) behavioral and social approaches, and (c) environmental and policy approaches. Within each approach, reviews of effective intervention programs for specific populations were provided. The intervention approach best suited to address the issue of physical inactivity among children in a school setting was a behavioral and social approach. More specifically, the most appropriate effective intervention program recommended by the Community Guide was to enhance school-based physical education (Guide to Community Preventive Services, 2011). “School and community programs that promote regular physical activity among young people could be among the most effective strategies for reducing the public health burden of chronic diseases associated with sedentary lifestyles” (CDC, 1997, p. 227). The physical activity of children and adolescents could have been improved through well-designed and well-implemented school-based programs (Siedentop, 2009; Wechsler et al., 2000). Siedentop (2009) found:

Programs of moderate to intense physical activity for 30-60 minutes per day for 3 to 5 days per week led to a reduction in adiposity for overweight children and adolescents but did not influence the percentage of body fatness in normal weight children and adolescents. Longer, more intensive sessions, such as 80 minutes per day, were successful in influencing the percentage of body fat of normal weight children and adolescents. (p. S171)

The implementation of physical activity programs that included opportunities for extracurricular activities such as intramural and interscholastic sports programs may have increased physical activity levels in children and adolescents (Fuller et al., 2011).

Extensive research on after-school programs that were specifically designed to promote and provide physical activity-based interventions found that the programs could provide participants with health benefits, including improvements in physical fitness, blood lipids profiles, and measures of body composition (Beets et al., 2010).

Parcel et al. (1989) used a multiple intervention strategy, the “Go For Health” (GFH) school health promotion project, to address change in individual behavior and environmental conditions that supported healthy behaviors. The GFH program incorporated classroom health education, food service, and physical education in an attempt to influence the diet and physical activity of the children. Organizational change and social learning theory (SLT) were the theoretical frameworks of the study, and “the program of interventions considered the interactions among environmental, cognitive, and behavioral factors” (p. 182). There were three program components implemented within two elementary schools (third and fourth grade), including the New School Lunch, Children’s Active Physical Education (CAPE), and Go For Health (GFH) classroom instruction. In order to create an environment that supported physical activity, there were two goals for the modification of the physical education classes using the CAPE program: “To increase 1) the proportion of class content devoted to general and

cardiovascular fitness; and 2) the amount of time students engage in moderate to vigorous physical activity at least 50.0% of class time available” (p. 183). Modifications were made to the physical education curriculum for the study and researchers stated, “although the activities of CAPE were structured to influence the health-related outcomes of cardiorespiratory endurance, muscular strength and endurance, flexibility, agility, and balance, the most important focus was on enjoyable (positive expectancy) movement” (p. 184). Results indicated for cognitive measures of physical activity, behavior capability and self-efficacy increased in fourth graders and third graders (for only one school) and participation in aerobic activity increased within the experimental group (Parcel et al., 1989). This was consistent with findings from other studies using the GFH program; “Results from the Go For Health program indicate positive outcomes for self-efficacy in that children felt more confident about their ability to change their behavior and understand future outcomes” (Ward, Saunders, & Pate, 2007, p. 77).

Simons-Morton et al. (1991), in reporting on a school-based physical education intervention based upon social cognitive theory and using the same Children’s Active Physical Education (CAPE) program, found the intervention schools within the study had higher levels of children’s physical activity at posttest than at baseline, as well as when compared with control elementary schools. The CAPE program included units, such as dancing, running, aerobic games, jump rope, and obstacle courses that promoted enjoyable moderate to vigorous physical activity (MVPA) during physical education classes. Researchers determined “it is possible to increase time devoted to MVPA from less than 10.0% to more than 40.0% of available class time” (p. 990).

Using a different physical education program/curriculum, the Child and Adolescent Trial for Cardiovascular Health (CATCH) program, McKenzie et al. (1996) found after the CATCH program was implemented, the 96 intervention schools across 4 geographic regions and ethnically diverse communities, showed that active physical education time increased by 39.0%, and CATCH program goals of 3 physical education lessons per week and 90 minutes per week of physical education time were maintained throughout the three year study. The CATCH program included physical activity in physical education and classroom-based settings. Participants attending intervention schools reported significantly more vigorous physical activity participation (reported in daily minutes), whereas, participants attending control schools reported only slightly more general physical activity participation.

A third program, Sports, Play, and Active Recreation for Kids (SPARK), was utilized during a 2-year study on children's physical activity during physical education and physical activity out of school. This health-related elementary physical education program was designed to promote enjoyable and high levels of physical activity, as well as teach movement skills to elementary children. The program was implemented during physical education classes three times per week and typically included health-fitness and skill-fitness activities. Within this particular study, a scripted self-management curriculum/program was also implemented. Seven elementary schools were assigned to one of three conditions, a specialist-led condition (certified physical education specialists), a teacher-led condition (trained classroom teachers), or a control condition (untrained classroom teachers; Sallis et al., 1997). Results indicated:

Students in the control condition had physical education less frequently and spent significantly fewer minutes per week in physical education classes. Most importantly, students in the two intervention conditions spent more time in physical activity in school. Specialist-led students participated in twice as much moderate to vigorous physical activity and expended twice as many calories during physical education each week as control students, with teacher-led students in between. (Sallis et al., 1997, p. 1330)

In addition, researchers found a substantial improvement in mile-run time for girls in the specialist-led group, and improvement in the scores on the sit-up test for girls in the specialist-group over those in the control condition group. Overall, the SPARK program increased physical activity during physical education classes, but not out of school. The specialist-led and teacher-led conditions provided more health-related physical activity than the control condition. Thus, “physical education classes can play a role in providing some of this physical activity for young people” (Sallis et al., 1997, p. 1331).

Project Heart, a school-based aerobic exercise intervention, was used to increase cardiorespiratory fitness and lower blood pressure in adolescent girls who were at increased risk for hypertension. The study found that, when the girls participating in the aerobic exercise group were compared with the girls participating in standard physical education classes, the aerobic exercise group showed improvements in aerobic fitness and modest reduction in resting systolic blood pressure (Ewart et al., 1998).

Harrell et al. (1999) examined the differences between two school-based interventions using third- and fourth-grade children, a public health classroom-based intervention and a risk-based intervention; both designed to improve cardiovascular disease risk factors and included physical activity components. The public health approach incorporated the physical activity intervention 3 times per week and included physical education lesson plans with 20 minutes of various, fun, noncompetitive aerobic

activities. The risk-based approach included the same physical activities 3 times per week but was taught by physical educators. Findings indicated that, when intervention schools were compared with control schools, there were greater increases in physical activity in the risk-based group. When this variable was combined with other variables in the study, overall, researchers concluded:

The results from the large-group, classroom-based approach showed stronger trends and were much easier to implement in the school system. Thus, our results support the public health approach to improving children's cardiovascular health by preventing the development of risk factors in some and by reducing risk factors in those who are already at risk. (Harrell et al., 1999, p. 1534)

A multi-component program addressing nutrition and physical activity in an elementary school found the 2-year intervention was successful for changes in the nutrition of the school, acceptance of the new lunch program by students, and nutrition knowledge tests; and marginally successful for changes in the level of physical activity of the students in the classroom. Using the guidelines of Physical Best, a program of the Society of Health and Physical Educators, "the existing classroom teachers delivered activities designed to promote energy expenditure and decrease time-off-task" (Donnelly et al., 1996, p. 232). Increasing energy expenditure in the physical education classroom and influencing children to participate in physical activity outside of the classroom were two main goals of the physical activity component of the intervention. Modest changes in the levels of physical activity in the classroom were seen after the intervention (Donnelly et al., 1996).

When examining the effects of a comprehensive school-based intervention on physical activity in high school girls, Felton et al. (2005) determined the intervention increased vigorous physical activity and moderate-vigorous physical activity among girls.

The intervention included major modifications to the physical education classes, but the girls participating in the intervention enjoyed physical education and believed they were more physically active. Physical activity was also promoted from a variety of sources within the school itself, such as promotional messages and materials from the media department and help from the school staff and nurse to find alternative ways to be physically active. Environmental and policy changes also took place, encouraging not only girls to be active, but faculty and staff as well. Last, the school administration was very supportive of the necessary changes required to implement the intervention successfully. This physical activity intervention not only increased physical activity among the girls but also demonstrated that the trends related to the decline in physical activity at the high school level can be reversed (Felton et al., 2005).

More research is needed to determine additional benefits of, the positive effects, and the influences these physical activity programs and interventions have on the levels of and participation in physical activity by children and adolescents. Despite the growing research that supported physical activity interventions in school settings, this research used education as an intervention component and focused mainly on targeting students directly (Larsen et al., 2013). Research utilizing an intervention aimed to study the outcomes and benefits to the end users (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005), while “implementation outcomes are changes in practitioner behavior in the intervention setting” (Larsen et al., 2013, p. 53). Larsen et al. (2013) went on to state, “few studies have been conducted focusing on the implementation process” (p. 53).

The Comprehensive School Physical Activity Program

Physical activity has been defined as “any bodily movement produced by skeletal muscles that results in energy expenditure” (CDC, 1997, p. 2; Rink et al., 2010, p. 7). Examples of physical activity included walking, biking, unstructured playtime, participating in organized sports, dancing, household chores, and working at a physically demanding job. There were a variety of settings where physical activity could take place. These settings included home, school, public parks and playgrounds, recreation centers, clubs and sports facilities, outdoor trails, summer camps, dance centers, and religious facilities (CDC, 1997). The Centers for Disease Control and Prevention recommended promoting lifelong physical activity for children and adolescents in 10 areas, which should be included within school and community programs. The 10 areas include policies that promoted enjoyable, lifelong physical activity; physical and social environments that encouraged and enabled physical activity; physical education curricula and instruction; health education curricula and instruction; extracurricular physical activity programs that met the needs and interests of students; involvement of parents and guardians in physical activity instruction and programs for young people; personnel training; health services for children and adolescents; developmentally appropriate community sports and recreation programs that were attractive to young people; and regular evaluation of physical activity instruction, programs, and facilities (CDC, 1997; Rink et al., 2010). Over the past 30 years, the status of physical activity has gradually risen within the health care and public health arenas (Pate, Yancey, et al., 2010), leading to times that have been shifting towards an increase in the knowledge and skills necessary to participate in lifelong physical activity. The *Guidelines for School and Community Programs to Promote*

Lifelong Physical Activity Among Young People stated, “the proportion of physical education class time spent on moderate to vigorous physical activity is insufficient to meet national health objectives” (CDC, 1997, p. 20). There have been a variety of strategies schools could use to provide physical activity opportunities for children and adolescents that included providing quality physical education, daily recess, afterschool programs, and extracurricular activities for all students (Rink et al., 2010; Siedentop, 2009; Wechsler et al., 2000). In the past, schools and communities have worked separately in attempts to improve the physical activity of children and adolescents (Rink et al., 2010). It was now apparent there was a need for different approaches to meet the physical activity needs of American children and adolescents. “It should be obvious that those communities that coordinate their efforts and bring all the targeted groups together to enact change will be more successful” (Rink et al., 2010, p. 15).

In an attempt to encourage coordinated efforts related to increasing the amount of physical activity in children and adolescents, the Centers for Disease Control and Prevention and the Society of Health and Physical Educators have recently created a plan to meet the physical activity needs of children and adolescents called the Comprehensive School Physical Activity Program (CSPAP). The American Alliance for Health, Physical Education, Recreation and Dance (2011b) defined a CSPAP as,

An approach by which school districts and schools utilize all opportunities for school-based activity to develop physically educated students who participate in the nationally-recommended 60+ minutes of physical activity each day and develop the knowledge, skills, and confidence to be physically active for a lifetime. (para. 1)

Comprehensive School Physical Activity Programs included programming specific to physical activity before, during, and after the school day, and a complete program should

include involvement in five major areas: quality physical education; family and community; school-based physical activity opportunities; before- and after-school physical activity; and wellness for school employees (AAHPERD, 2011b; CDC, 2013; NASPE, 2008; Rink et al., 2010). Figure 1 represents the components and organization of the CSPAP. There are two major goals for the CSPAP: (a) “to provide a variety of school-based physical activity opportunities that enable all students to participate in at least 60 minutes of moderate to vigorous physical activity each day”; and (b) “to provide coordination among the CSPAP components to maximize understanding, application, and practice of the knowledge and skills learned in physical education so that all students will be fully physically educated and well-equipped for a lifetime of physical activity” (AAHPERD, 2011b, para. 2). Rink et al. (2010) commented on the complexity of implementation,

Implementing a coordinated school physical activity program will require schools to plan and conduct activities during the school day that provide physical activity for students, plan and conduct before- and after-school programs that provide students with opportunities to be physically active, plan and conduct special school and community events that encourage physical activity, plan and conduct programs to educate parents on the importance of physical activity and involve families in physical activity, provide good adult role models for physical activity, and have teachers in all programs reinforce student participation in physical activity. (p. 16)

Comprehensive School Physical Activity Programs were also one part of the Coordinated School Health (CSH) program, a larger health framework for schools and communities. Coordinated School Health programs included eight essential components including health education, physical education, health services, mental health and social services, nutrition services, healthy and safe environment, and family and community involvement (AAHPERD, 2011b; Wechsler et al., 2000).

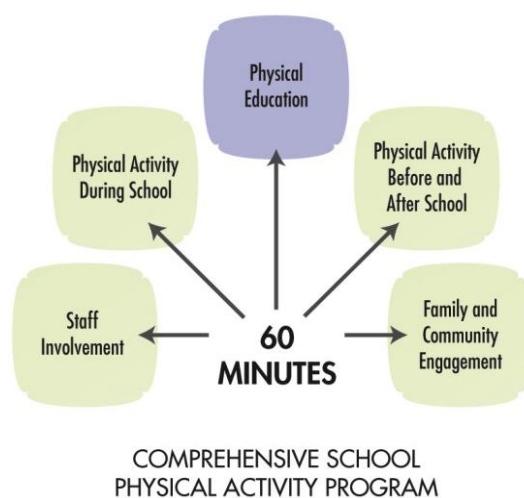


Figure 1. The components and organization of the comprehensive school physical activity program (CDC, 2013, p. 12).

Despite the efforts of the Centers for Disease Control and Prevention and the Society of Health and Physical Educators to present a more organized and comprehensive approach to increasing physical activity in schools and communities, the concept of comprehensive physical activity promotion in school settings has not been a new concept. In 1994, Pate and Hohn edited a book titled “Health and Fitness Through Physical Education” describing how to incorporate and promote health-related physical fitness and physical activity in the school curriculum and in physical education. A comprehensive approach, called “Moving to Success,” to teach fitness in elementary schools was presented. This program included several goals similar to the goals of the CSPAP, and one specific goal was to enhance “regular participation in physical activities in addition to PE classes” (Ratliffe, 1994, p. 147). Figure 2 displays the components of the Moving to Success approach. This comprehensive approach, specific to the elementary level, included components similar to those within the CSPAP, such as providing physical

education; out-of-class opportunities (physical education clubs, running clubs, fitness projects); early morning physical activity opportunities; classroom physical activity programs (Physical Exercise Revives Kids-PERK); home (parental) and community involvement and support; and walking programs for students, teachers, families, parents, and community members (Discover and Understand Communities, Kids, by Walking-DUCK Walking; Steller & Young, 1994). Although more than 20 years existed between these two comprehensive physical activity programs, they have had the same goals and encouraged physical educators, classroom teachers, and other school personnel to promote physical activity in the same ways: quality physical education, community and family involvement, physical activity opportunities during the academic school day, physical activity opportunities outside of the academic school day, and school employee wellness and involvement.

Quality Physical Education

Quality physical education (QPE) was the core of the CSPAP (CDC, 2010a; NASPE, 2008; Rink et al., 2010) and the National Association for Sport and Physical Education and the American Heart Association (2012) recommended daily quality physical education from kindergarten through 12th grade. In the U.S., regular physical activity opportunities could have been provided to 97.0% of elementary students via physical education classes (Ross & Gilbert, 1985), however, based on 2010 results within the Centers for Disease Control and Prevention's *State Indicator Report on Physical Activity*, only 37.0% of U.S. schools required elementary, middle, and high schools to teach physical education.

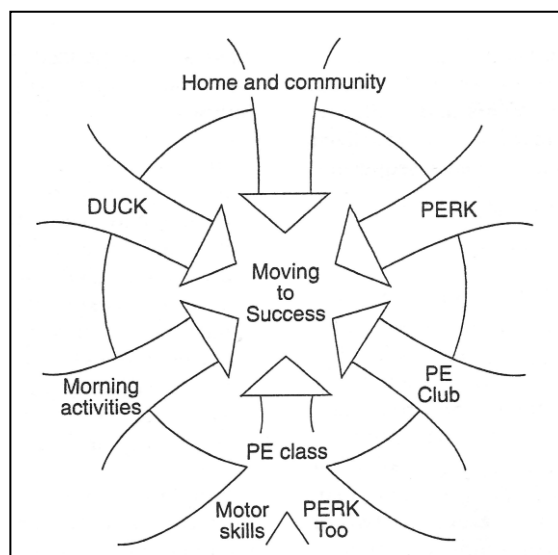


Figure 2. A comprehensive approach, “Moving to Success,” to teach physical fitness in elementary schools (Steller & Young, 1994, p. 179).

The goal of quality physical education has been to “develop physically literate individuals who have the knowledge, skills and confidence to enjoy a lifetime of healthful physical activity” (Society of Health and Physical Educators [SHAPE America], 2013, p. 4). A quality physical education program included daily physical education (CDC, 2010a), a curriculum aligned with the national standards for physical education, student assessment that was in alignment with instruction, meaningful content taught through standards-based instruction, a certified physical education teacher, pupil-teacher ratio that was equal to the pupil-teacher ratio within the regular classroom context, and practice time that was supported by adequate equipment and facilities (CDC, 1997; NASPE, 2008). According to SHPPS data, 76.0% of states required or encouraged districts to follow national standards or guidelines for physical education, and 64.7% of states required physical education teachers to have an undergraduate or graduate degree

in physical education. Siedentop (2009) and Sallis et al. (1997) found that, when studies compared treatments delivered by certified physical education teachers and those delivered by classroom teachers, the certified physical education teacher classes' demonstrated stronger outcomes. "Physical education teachers were superior to trained classroom teachers in most outcomes. Specialists spent more time in physical education classes, provided students with more physical activity, and enhanced female students' fitness" (Sallis et al., 1997, p. 1333). School Health Policies and Programs Study (SHPPS) data also indicated that, on a district level, 81.4% required or encouraged schools to follow national standards or guidelines for physical education and 93.3% had adopted a policy mandating or recommending elementary physical education. Although only 36.5% of schools reported a pupil/teacher ratio, the median maximum ratio was 29 to 1 (Rink et al., 2010). The amount of time students should be participating in physical education in elementary school was 150 minutes per week and in middle school was 225 minutes per week (CDC, 2010a; Rink et al., 2010; Siedentop, 2009). According to SHPPS data, only 3.8% of elementary schools and 7.9% of middle schools reported meeting the minimum number of minutes recommended for physical education (Rink et al., 2010).

The benefits of including a quality physical education program have been it contributed to students' regular participation in physical activity and could increase student participation in moderate to vigorous physical activity (NASPE, 2008). Students should have left quality physical education programs as physically literate individuals. The Society of Health and Physical Educators (2014) stated:

To pursue a lifetime of healthful physical activity, a physically literate individual has learned the skills necessary to participate in a variety of physical activities, knows the implications and the benefits of involvement in various types of physical activities, participates regularly in physical activity, is physically fit, and values physical activity and its contributions to a healthful lifestyle. (p. 11)

For elementary students, the development of basic motor skills would lay the foundation for physical activity participation in a variety of physical activities should be taught and practiced throughout quality physical education classes (CDC, 1997). Siedentop (2009) reported, “investigators concluded that students with higher object control skills in their early years had significantly higher self-reported moderate to vigorous physical activity and cardiorespiratory fitness” (p. S175). Also within these physical education classes, students should have been given the opportunity to meet a substantial percentage of the recommended amount of weekly physical activity (CDC, 1997). “Unfortunately, there is an apparent disconnect between the curriculum delivered in most physical education programs and what is needed for adults to engage in lifelong physical activity” (Bulger & Housner, 2009, p. 450). The top five activities taught in secondary physical education were all team sports, however, most adults reported participation in physical activities such as walking, tennis, bowling, golf, stretching, and resistance training; activities that were not team sports (Corbin, 2002). Pate, Sallis, et al. (2010) found middle school girls enjoyed participating in sports such as walking/jogging, basketball, dance, gymnastics, track and field, volleyball, and softball the most. Physical education teachers should have included this within their curriculum, as well as advocated for participation in these physical activities outside of their physical education class and provided opportunities such as intramural and interscholastic sports at the school and within the community (Pate, Sallis, et al., 2010). In response, Ryan and Beighle (2010) reported that the

physical education curriculum was shifting their main focus to lifetime physical activities, such as swimming, tennis, and walking/jogging.

The Healthy People 2010 (USDHHS, 2000) guidelines recommended a physical education class include a minimum of 50.0% moderate-to-vigorous physical activity (MVPA). Despite this recommendation, Meyer et al. (2013) concluded, “even if only one-third of physical education time is spent in MVPA in elementary school-children, physical education provides an important possibility to be active, especially in overweight children” (p. 605). Physical activity during physical education significantly contributed to the overall daily physical activity of children. Meyer et al. (2013) found “children performed 16 min more MVPA on days with than without physical education, which was 17.0% of MVPA the whole day” (p. 603). When physical activity interventions were implemented in physical education classes, they typically achieved increased MVPA within the class time (Siedentop, 2009). The *2012 Shape of the Nation Report* stated:

Physical education is a curricular area that helps students to develop physical and cognitive skills while engaging in physical activity...the most obvious lesson [gained from a quality physical education program], of course, is the importance of being physically active throughout life. Research shows a real link between quality physical education and present and future physical activity participation. (NASPE & AHA, 2012, p. 3)

Community and Family Involvement

The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* stated communities were essential because, “most physical activity among young people occurs outside the school setting” (CDC, 1997, p. 5). Comprehensive School Physical Activity Program directors should have worked in partnership with community-based organizations to provide physical activity

opportunities for students outside of the school setting (CDC, 1997; NASPE, 2008; Rink et al., 2010), as well as provided physical activity resources and services to children and adolescents who were in need. Community programs could have provided opportunities for children and adolescents to participate in physical activities and programs of a variety of types and at different levels than those offered in schools (CDC, 1997). There were several ways schools could have helped promote and inform students and parents about physical activity opportunities within the community; these included: sponsoring informational fairs that included community groups; providing information within the physical education and health education curricula; and inviting community-based representatives to speak or demonstrate to students within the school (CDC, 1997; Rink et al., 2010). In situations where children and adolescents came from low-income families and may not have had the appropriate equipment, clothing, and footwear for safe participation in physical activity, communities could have asked local businesses to sponsor physical activity programs so these children and adolescents were given the opportunity to participate (CDC, 1997). In addition, making changes and planning for physical activity opportunities within the community could have increased the level of physical activity of a population within a community itself. When there were opportunities for physical activity, such as walking trails, biking lanes, sidewalks, playgrounds, community centers, churches, and recreational programs, community members and families were more likely to engage in physical activity (Rink et al., 2010).

Parents have played a vital role in students' lives, especially when it came to encouraging a lifestyle that included physical activity and impacting the level of physical activity participation (CDC, 1997; NASPE, 2008; Rink et al., 2010; Welk, 1999).

“Students with active parents are more active” (Rink et al., 2010, p. 8). It was unlikely the public health goals of physical education, preparing children for a lifetime of physical activity, could have been achieved unless parents were involved in the learning process; and parents should have assisted teachers in promoting and participating in physical activity for children. “Parents may be able to influence the quality and quantity of physical activity available to their children by advocating for comprehensive, daily physical education in schools and for school and community physical activity programs that promote lifelong physical activity among young people” (CDC, 1997, p. 18). Family cohesion, parent-child communication, and parental engagement were three positive predictors for child and adolescent engagement in physical activity during discretionary time (Siedentop, 2009). Hopper et al. (1996) found moderate improvements in the health-related behaviors of children could have been made with parent participation in physical activity, physical fitness, and nutrition. Therefore, it was essential for physical activity promotion to go beyond the school and reach out to parents, families, and community members; and an appropriate CSPAP needed to include educating the parents and community members on the importance of physical activity. They should have been provided with strategies that would have helped them promote physical activity opportunities outside of the school (NASPE, 2008; Rink et al., 2010), and should have been included in activities and events before, during and outside of the school day.

Another way physical education could have promoted public health was to encourage students to be physically active outside of school by assigning homework that students completed on their own or with family members. Physical education teachers could have assigned structured or unstructured homework that addressed psychomotor,

cognitive, or affective domains. Allowing students to choose their own physical activities as active homework could have emphasized the creation of physical activity habits outside of school based on physical activities students like to participate in, as well as provided an opportunity for students to develop levels of physical fitness and motor skills, and decreased sedentary activities outside of school. It was recommended that physical education teachers involve parents whenever possible to increase overall health and physical activity knowledge, increase awareness and knowledge of physical education curriculum and content, and encourage participation in physical activities by both students and family members (Smith & Claxton, 2003; Williams & Hannon, 2013). “Even though PE teachers do not directly work with adults, they could potentially affect adult PA [physical activity] indirectly through adolescents [students]” (Williams & Hannon, 2013, p. 4). Examples of physical education homework assignments included self-assessment worksheets, pedometer assignments, physical activity interviews, and calendar assignments (Williams & Hannon, 2013).

Schools could have communicated with parents and the community in a variety of ways, including newsletters, informational flyers, emails, and websites. They could have also provided opportunities, such as family fun nights and community activity labs, for family and community participation in physical activities (Ryan & Beighle, 2010). A final way to involve parents was to encourage them to join school health advisory councils, booster clubs, and parent-teacher organizations, as well as to volunteer in extracurricular programs (CDC, 1997; Rink et al., 2010).

Final support systems within the community were physicians, school nurses, and other health-care professionals. Comprehensive School Physical Activity Program

directors should have reached out to these professionals to become involved in physical activity initiatives within the school and community environments (CDC, 1997). Overall, school-based interventions that included family and community involvement showed strong outcomes for several large, high-quality trials reviewed (Siedentop, 2009).

Physical Activity Opportunities During the Academic School Day

Schools should have played a major role in the effort to change the physical activity patterns of children and adolescents. “Because few children have physical education every day, other school programs have to accept responsibility for providing the needed activity (Rink et al., 2010, p. 16). The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* stated that schools need to “provide time within the school day for unstructured physical activity” (CDC, 1997, p. 12). Examples of structured and unstructured physical activity time outside of quality physical education included classroom physical activity breaks, integrated lessons, and recess. The “My Classroom Physical Activity Pyramid,” shown in Figure 3, was a tool for elementary classroom teachers that, “is an easy-to-understand graphic organizer that communicates and assesses the many ways in which physical activity can be integrated throughout the school day” (Orlowski, Lorson, Lyon, & Minoughan, 2013, p. 48). The physical activity pyramid included five categories reflecting various ways students could participate in physical activity throughout the school day. The categories included everyday physical activities, activity breaks, integrated lessons, active games and celebrations, physical education, and inactivity. Recess, walking to and from school, active transitions from classes or subjects, and organized sport or recreation are activities that students should have been participating in on their own every day in order to be

active for 60 minutes per day. Activity breaks and integrated lessons occurred within a classroom setting and were directed by the classroom teacher. Active games, celebrations, and physical education occurred less frequently and outside of the classroom. Typically, physical education was taught by a professional and could have contributed to the recommended 60 minutes of daily MVPA; however, it usually did not occur on a daily basis. The final category, inactivity, was the smallest section of the pyramid because inactivity and sedentary activities during the day should have been discouraged (Orlowski et al., 2013).

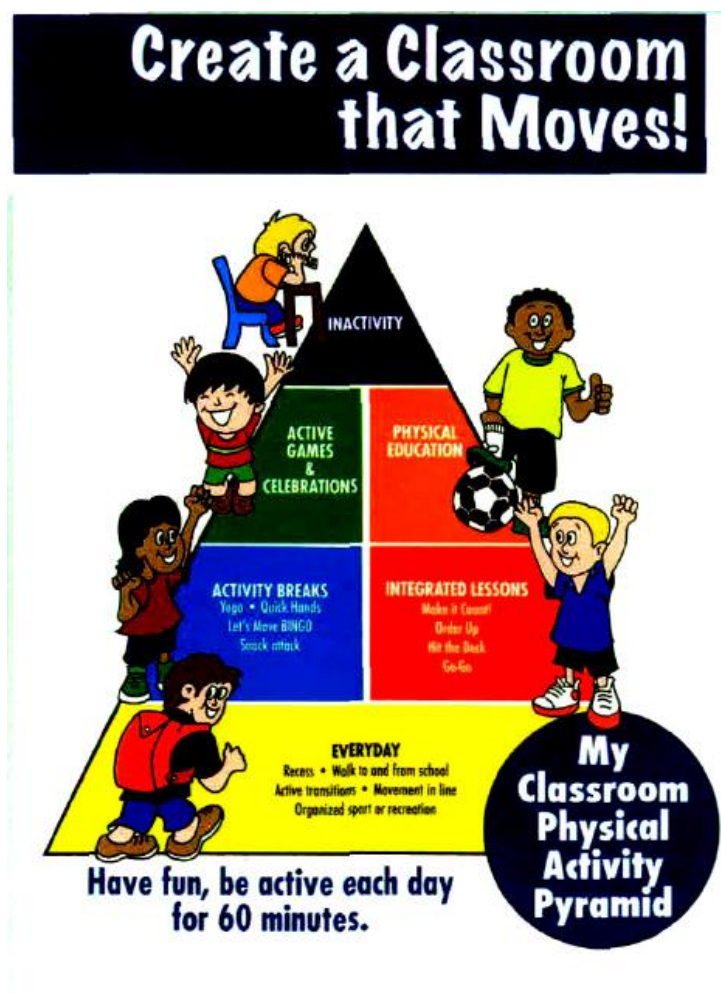


Figure 3. My classroom physical activity pyramid (Orlowski et al., 2013).

Classroom physical activity breaks. Siedentop (2009) defined a classroom activity break (CAB) as “a short time period within or between subject lessons” (p. S174) and should have been approximately 3 to 10 minutes in length for every hour of seat work. Rink et al. (2010) recommended regular classroom physical activity breaks for all students in grades kindergarten through 12 and should have included physical activities that students engaged in within the classroom setting. They were extremely important because, other than physical education, these breaks could have been the only source of physical activity during the school day for many students (Castelli & Beighle, 2007). Classroom activity breaks provided a break from sedentary activities and allowed students to increase daily physical activity levels (NASPE, 2008; Siedentop, 2009). Research indicated “CABs reduce classroom disruptions and contribute to improved on-task behavior among students during academic instruction” (Siedentop, 2009, p. S174). When implementing interventions that target healthy behaviors in schools, Kulinna, Brusseau, Cothran, and Tudor-Locke (2012) found activity breaks to be a critical component of the intervention. According to the SHPPS data released in 2006, 43.6% of elementary schools and 66.8% of middle schools provided classroom physical activity breaks during the school day (Rink et al., 2010).

One way CABs could have been promoted in the school environment was to have classroom teachers and physical educators collaborate and create opportunities for physical activity for students. Preservice preparation including information and training regarding appropriate kinds and amounts of physical activity for children during recess and classroom activity breaks should have been provided for elementary classroom

teachers. Also, practicing elementary classroom teachers should have been provided with in-service education, equipment, and technical support to implement classroom activity breaks that provided students with physical activity opportunities, as well as enhanced behavioral and learning outcomes (Siedentop, 2009). When examining the perceptions of classroom teachers who utilized physical activity in the classroom, McMullen, Kulinna, and Cothran (2014) determined the activity breaks needed to be easy to implement, worthwhile in that the teachers should have been able to reinforce academic content along with providing movement, required minimal equipment and preparation, and were enjoyable for the students. A few examples of resources that could have been used to implement CABs included brain breaks, Brain Gym, Eat Well and Keep Moving, North Carolina PE 4 Me Energizers, Planet Health, Take 10, the Active and Healthy Schools Program (Ryan & Beighle, 2010), Learning on the Move, and Lift Off! (Siedentop, 2009).

Integrated lessons. Graham et al. (2013) defined integrated lessons, also known as interdisciplinary learning, as “connecting content from at least two subject areas in an attempt to promote learning in both subjects” (p. 668). Classroom teachers could have created lessons that integrated physical activity into academic lessons in the classroom on a daily basis. The benefits of doing so included the reinforcement of curriculum content, transfer of learning from one setting to another, providing students with multiple opportunities for content and skill practice, and creating an understanding of the connection between what they are learning and the real world (Graham et al., 2013). Physical activity and movement could have been easily incorporated into a variety of

academic lessons, engaging students in the learning process with more interest and motivation (Orlowski et al., 2013).

Recess. Recess was a third way in which schools could have provided physical activity opportunities for students throughout the school day. Siedentop (2009) defined recess as “a break during the school day when elementary [or middle] school students have the opportunity to participate in a period of active play” (p. S174). As structure during the school day has increased, the opportunity for students to make choices, including choices about participating in physical activity during the school day have been decreasing. Recess was one opportunity that still existed for students to make decisions about participating in physical activity on their own (Stellino, Sinclair, Partridge, & King, 2010). Elementary schools should have provided all students with at least one 20-minute period of recess on a daily basis, as recommended by the National Association for Sport and Physical Education (Beighle et al., 2006; CDC, 2010a; Siedentop, 2009). Beighle et al. (2006) found the amount of time spent participating in physical activity during recess was 78.0% for boys and 63.0% for girls. These findings suggested that recess was an important source of physical activity and the amount of physical activity children accumulated during recess was meaningful in contributing to the recommended amount of physical activity for children. The National Association for Sport and Physical Education (2008) stated recess was extremely important for a child’s physical, social, and academic development. During recess, students have had the opportunity to negotiate, cooperate, and build conflict resolution skills with limited adult interference (Wechsler et al., 2000).

Siedentop (2009) summarized research related to recess, which indicated the following: time spent in recess enhances, rather than detracts, from academic learning because students were more attentive and on-task in the classroom; recess was an opportunity for students to learn how to make choices regarding rules for play, organizing their own games and activities, and develop socially; the percentage of time students engaged in physical activity and the intensity of that physical activity was influenced by the organization and activity opportunities provided by available equipment and playground design (Stellino & Sinclair, 2013, 2014); as the daily duration of recess increased, the effects of the physical activity intervention also increased; there was an increase in physical activity and total energy expenditure when there were colorful or fluorescent markings on school playgrounds that outlined various physical activity areas for different levels and types of physical activity; and learning, developing and mastering basic motor skills in physical education that could have ultimately led to feelings of competence during recess periods could have positive impacts on recess physical activity participation and enjoyment (Stellino & Sinclair, 2013). Children were motivated to be physically active at recess for intrinsic and internal reasons; and although boys were more externally motivated than girls, boys had higher physical activity levels than girls at recess (Stellino & Sinclair, 2013). Beighle et al. (2006) also explained:

Although some children may participate in a significant amount of physical activity during recess by choice, several strategies are suggested to increase participation in recess physical activity [by all children] including increasing the availability of equipment, having supervising teachers encourage unstructured games that maximize activity time, and having the physical education teacher teach games that can be played at recess that focus on inclusion, low organization, and maximize activity. (p. 519)

Physical activities elementary students choose to participate in varied based upon gender, elementary grade level, and body mass index (Stellino & Sinclair, 2014; Stellino et al., 2010). In addition, it was recommended that schools should schedule recess at some point in the school day before lunch because several studies found students who had recess before lunch ate more of their food at lunch than those students who had recess after lunch (Wechsler et al., 2000). Schools should have considered these factors when providing physical activity opportunities, such as recess, during the school day.

The American Alliance for Health, Physical Education, Recreation and Dance *2011 Comprehensive School Physical Activity Program Survey Report* indicated scheduled recess was provided in over 80.0% of elementary schools, however, the percentage declined through middle school and then declined even further in high schools where only 10.0%-11.0% of schools provided recess. In addition, according to the SHPPS data released in 2006, 57.1% of districts required regularly scheduled recess, 38.5% of districts required a minimum of 30 minutes of daily recess, and 36.5% had policies not allowing exemption from recess for behavior issues (Rink et al., 2010). Despite this information, the Center on Education policy showed that No Child Left Behind had forced a 28.0% decrease in time allotted for recess, which has had a detrimental effect on the essential opportunity for physical activity for children and adolescents (Siedentop, 2009). Siedentop (2009) stated, “Article 31 of the United Nations Convention states that recess is the right of every child and that taking away recess, whether as a disciplinary measure or abolishing it in the name of work, infringes on that right” (p. S174).

Physical Activity Opportunities Outside of the Academic School Day

Tudor-Locke, Lee, Morgan, Beighle, and Pangrazi (2006) found accumulated daily physical activity that was from outside of the school day was 58.0% for boys and 56.0% for girls. Therefore, a significant amount of children's daily physical activity levels could have been outside of school (Beighle et al., 2006). Physical activity opportunities outside of the academic school day included intramural sports programs, interscholastic sports programs, and before- and after-school programs (Beighle et al., 2006; Rink et al., 2010). These activities "provide students with opportunities to engage in physical activity and to further develop the knowledge, attitudes, motor skills, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles" (CDC, 1997, p. 17).

Intramural activities. Intramural activities were physical activity opportunities provided to students within the school environment (NASPE, 2008). According to the SHPPS data released in 2006, 49.5% of elementary schools and 48.5% of middle schools offered physical activity clubs or intramurals (Rink et al., 2010), however, "in the transition from middle school to high school, there is a large drop in schools that have more than one-fourth of their student population participating in at least one physical activity club or intramural sport" (AAHPERD, 2011a, p. 4). This decline in participation was unfortunate because Fuller et al. (2011) found intramural activities "help students learn to integrate physical activity into their daily routines" (p. 450). At the middle school level, Pate, Sallis, et al. (2010) suggested open sports participation to students in all grades as a way to promote physical activity because 6th-grade girls were less likely to report competitive sports participation (participating in interscholastic team sports) than

8th-grade girls. Sixth-grade girls reported participation in physical activities such as walking, basketball, dance, running/jogging, biking, playground games, and gymnastics; all of which were suitable intramural-type activities. The 6th-grade girls reported participating in these activities in the home or community environment; providing opportunities for these activities at school may increase physical activity participation for girls at the middle school level. Fuller et al. (2011) concluded that secondary school and adolescent participants “attending schools with a high number of intramural sports reported higher levels of total and vigorous physical activity than participants attending schools with fewer intramural sports, regardless of whether or not they participated in the intramural sports program” (p. 452). They further suggested this could be due to the environment in schools that offered a high number of intramural programs reinforces positive attitudes towards physical activity, and in turn supported increases in physical activity. The study offered evidence that providing intramural sports opportunities had potential for helping students meet the recommended amount of daily physical activity (Fuller et al., 2011).

Intramural programs should have been based upon the needs, interests, and abilities of most students. A diverse selection of physical activities, both competitive and noncompetitive, should have been provided and all students should have been given the opportunity to participate. Populations with special physical activity needs and those who were at-risk for a sedentary lifestyle should have been taken into consideration when creating and implementing intramural opportunities (CDC, 1997; Fuller et al., 2011; NASPE, 2008; Rink et al., 2010; Wechsler et al., 2000). In an attempt to provide opportunities to all students, data reported on the 2006 SHPPS indicated 35.0% of

schools charged a fee for after-school physical activity, but 86.1% waived the fees based upon specific income limits (Rink et al., 2010).

Interscholastic sports programs. Another opportunity for students to participate in physical activity outside of the school day included interscholastic sports programs. Interscholastic (also called extramural; 2011) sports programs were physical activity opportunities provided to students that allowed for competition that was “existing or carried on between schools,” as defined by the online Merriam-Webster dictionary. Interscholastic sports programs were designed for more skillful students, predominantly middle and high school students, and provided a competitive environment between schools. The National Association for Sport and Physical Education identified specific coaching competencies that coaches and program employees should have met in order to provide instruction that was appropriate for the development and skill levels of interscholastic sports program participants (CDC, 1997). The most common after-school activity at the high school level was interscholastic sports (89.0%); yet in recent years, interscholastic sports policies have been cut by 65.0% of high schools (AAHPERD, 2011a). This was concerning because Pate, Sallis, et al. (2010) determined 8th-grade girls typically engaged in school-based competitive team sports, such as softball, track and field, and volleyball, as their top choices for physical activity. Last, it was recommended that interscholastic sports programs be offered in addition to intramural programs, as opposed to in place of intramural programs due to the differences in the purpose of each type of program (CDC, 1997; Fuller et al., 2011; NASPE, 2008; Wechsler et al., 2000).

Other before- and after-school programs. Another strategy schools could have used to combat physical inactivity and obesity were after-school programs that supported

healthful physical activity (Beets et al., 2010). After-school programs were structured and goal-oriented programs typically held between 3:00 p.m. and 6:00 p.m. within a school, recreation, or church setting. The purpose of an after-school program was to provide: (a) supervision during a time in which students may participate in antisocial or destructive behaviors; (b) socialization experiences and opportunities that may broaden students' perspectives; and (c) assistance and help to increase academic achievement, especially for students who may not receive the instruction and attention they need during regular school hours (Fashola, 2002). It has not been until recently that practitioners have recognized that after-school programs could have offered physical activity opportunities outside of the academic school day; because physical activity opportunities that were provided during the academic school day contributed to less than half of the total daily physical activity for children and adolescents, it was essential to provide these opportunities outside of the academic school day (Beets et al., 2010). In addition, after-school programs could have motivated and encouraged learning and physical activity outside of the school day (Ryan & Beighle, 2010), as well as helped students meet the recommended amount of daily physical activity (Beets et al., 2010). These programs "have the potential to reach all children, regardless of socioeconomic status and those who live in environments that may be not be conducive to physical activity" (Beets et al., 2010, p. 412). Despite the opportunities for students to participate in after-school programs and recommendations for physical activity during after-school programs, the programs were failing to provide physical activity opportunities for children to meet physical activity policy goals and guidelines. In order to achieve these goals, after-school program practitioners and coordinators needed to create strategies that could have

increased physical activity opportunities for children during these programs (Beets, Huberty, & Beighle, 2012). One way to increase after-school program physical activity was to provide program leaders with resources that guided and assisted them in providing physical activity opportunities. Resources that were offered by public and private enterprises included CATCH (Coordinated Approach to Child Health), Girls on the Run Program, Power of Choice, President's Challenge, ReCharge!, and SPARK (Sports, Play, and Active Recreation for Kids; Ryan & Beighle, 2010).

A final strategy, before-school physical activity programs, included active transportation and alternative ways (walking and biking) of getting to and from school. This was an excellent way to increase physical activity and was recommended for students and staff (NASPE, 2008). According to the SHPPS data released in 2006, 44.3% of schools supported or promoted walking or biking to and from school (Rink et al., 2010). Additional before-school physical activity programs and ideas included "Feelin" Good Mileage Program, physical activity clubs, and a morning TV news broadcast that provided short physical activity opportunities to all students during morning announcements (Ryan & Beighle, 2010).

Currently, in 63.0% of elementary schools in the United States, before- and/or after-school programs were offered. In 38.0% of the before-school programs and 88.0% of the after-school programs, time for physical activity was provided for participants (AAHPERD, 2011a). In addition, according to the 2006 SHPPS data, 54.6% of schools paid staff to run before- or after-school programs, and 22.9% of schools provided transportation home for students participating in after-school programs (Rink et al., 2010).

It was important to note that these school-based physical activity opportunities should not have replaced physical education programs; they should have been in addition to the physical activity time provided within physical education classes (CDC, 1997, 2010a). Within a CSPAP, all of the physical activity interventions and opportunities should have complemented one another (NASPE, 2008; Wechsler et al., 2000). Students should have used the knowledge and skills gained in physical education in order to be successful and effective throughout additional physical activity opportunities (NASPE, 2008).

School Employee Wellness and Involvement

Research has shown that school employee wellness programs had benefits that included improvements in staff health, an increase in physical activity levels, and were cost effective. Wechsler et al. (2000) found “participation in school health promotion programs for staff reduced absenteeism, raised morale, increased participation in vigorous activity, facilitated weight loss, lowered blood pressure, and improved stress management skills” (p. 131). School employees should have participated and modeled a healthy lifestyle that included physical activity to be positive role models, encourage, and demonstrate support for student participation in physical activity (CDC, 1997; NASPE, 2008; Wechsler et al., 2000). After-school programs could have provided school employees with opportunities to engage in professional development as well as model and promote physical activity. Providing these opportunities to staff were recommended to produce a quality after-school program that ensured that children gained the greatest benefits from participating in the after-school program (Beets et al., 2010). Further research was necessary to determine the degree to which school employee wellness

programs were effective and influenced the physical activity and health of school employees. In addition, more research was needed on the role that school employees played in influencing the physical activity levels of students because of the programs that were offered to the school employees.

Guidelines for Implementing Comprehensive School Physical Activity Programs

In order to implement and establish a CSPAP, the National Association for Sport and Physical Education (2008) and Rink et al. (2010) recommended several steps that administrators and program directors should follow. First, establish a committee to develop and oversee the CSPAP. In addition, Carson (2012) reported identifying a supportive school administrator and having a certified director of physical activity as necessary steps within the beginning stages of this process. Second, one should research and document the policies that already exist within the state, district, school, and community. Third, one should conduct a baseline assessment of the programs and activities that already exist within the school and community. Fourth, one should create a vision statement and an action plan that addresses the components of the CSPAP and would be appropriate for the school and community. Next, one should implement the action plan. The final step for the committee was to continue to monitor, evaluate, and maintain the CSPAP within the school and community. Rink et al. (2010) recommended adherence to several appropriate practices and strategies that had the potential to increase the effectiveness of the CSPAP and included: implementing a health education curriculum; providing regular, developmentally appropriate physical activity breaks in the day; teacher agreement not to use physical activity or remove students from physical activity as punishments; encouraging children and adolescents to be physically active and

make healthy eating choices, as well as promoting and celebrating activity and healthy eating successes; using bulletin boards, posters, and other visuals to promote physical activity and healthy living; communicating and informing parents and guardians on how to guide children towards a healthy and active lifestyle; inviting parents and guardians to be involved in the program and school initiatives; and holding the program accountable by documenting required information and evaluating the program.

Organization and Structure

Physical activity programs should have been structured so that a wide variety of students have the opportunity to be involved. A wide variety of physical activities, such as non-competitive and health-enhancing choices should have been available. The physical activities should have been offered at a variety of times throughout the day so that opportunities were available for all children (NASPE, 2008; Wechsler et al., 2000).

It was essential that schools and communities provided access to safe spaces and facilities for physical activity. Researchers have also found having access to convenient play spaces, sports equipment, and transportation to sports or fitness programs was positively correlated with adolescent participation in physical activity (CDC, 1997; Rink et al., 2010; Wechsler et al., 2000). These safe space and facilities, equipment, and transportation should have been made available to children, adolescents, families, and community agencies and organizations who offered physical activity programs before, during, and after-school, on the weekends, and throughout the summer and other vacation times (CDC, 1997; Wechsler et al., 2000). Research relating to school recess has determined that playground designs had the ability to decrease bullying, playground confrontations, and playground injuries (Siedentop, 2009). If minimal or unsafe spaces

and facilities existed, the Centers for Disease Control and Prevention (2010a) recommended improving neighborhood access to fitness and recreational centers, parks, or providing access to local school physical activity facilities to increase opportunities and support for physical activity.

When planning for and implementing a physical activity program, it was important to establish and enforce written policies on the necessary actions and procedures to prevent and provide care for physical-activity related injuries and illnesses. Having appropriate adult supervision, following all safety rules and guidelines, the use of protective clothing and equipment, and avoiding the effects of extreme weather conditions were required to prevent injuries and illnesses. Written policies on providing and documenting care for physical activity participants should have been made available to parents, appropriate school personnel, and community authorities (CDC, 1997).

Policies and Standards

Policies, or formal and informal rules, that promoted enjoyable, lifelong physical activity for elementary and middle school students should have been established. They acted as essential guides for schools and communities in planning, implementing, and evaluating physical activity programs (CDC, 1997). Commitment from school leadership, guidance, and direction for school staff and accountability for action were demonstrated when school policies relating to physical activity were established and implemented (Wechsler et al., 2000). Lee, Wechsler, and Balling (2006) stated,

The essential cause of the increase in overweight among children and adolescents is caloric imbalance, which results from inadequate physical activity, poor dietary choices, or both. These behaviors are influenced by many sectors of society, including families, government agencies, the media and schools. None of these sectors can solve the childhood obesity epidemic on its own; however, it is unlikely to be solved without strong school-based policies and programs. (p. 7)

After completing a systematic review for existing policies related to increasing physical activity behavior in children and adolescents at the international level, as well as the extent to which the policies were supported by research, Pate, Trilk, Byun, and Wang (2011) found “implementing physical activity policies across domains will likely be the most effective strategy for improving physical activity in children and youth” (p. 12).

Guidelines and requirements for physical education in the United States were set by each individual state and individual school districts were responsible for implementing these guidelines and requirements (NASPE & AHA, 2012). “Each state determines how to balance authority and responsibilities between state and local districts, often giving major responsibilities for policies governing schools to individual school districts throughout the state” (Rink et al., 2010, p. 23). The National Association for Sport and Physical Education reported, “although most states require physical education, few have mandates for how much time should be devoted to these programs or how they should be conducted” (Rink et al., 2010, p. 5). Conversely, policies that guided and funded physical education and physical activity programs in local school districts also required significant policy initiatives from the federal and state levels (Siedentop, 2009). Policy and standard recommendations were provided by national, state, and local agencies and organizations and should have acted in accordance with state and local laws (CDC, 1997).

The National Association for Sport and Physical Education (2008) stated, “strong administrative support and staff involvement in the CSPAP are critical to school program success” (p. 3). Kulinna et al. (2012) found a critical aspect to the success of implementing a physical activity intervention in schools to be institutional and policy factors related to resource support. When establishing or revising policies, input was

required from a variety of sources directly related to and affected by the policies. Rink et al. (2010) also stated, “the success of a school wellness program depends on the involvement and support of several groups” (p. 25). Collaboration with administrators, teachers, coaches, athletic trainers, parents, students, health-care providers, public health professionals, and other school and community personnel should have been considered (CDC, 1997; Patton, 2012; Rink et al., 2010). When examining individual school designed programs to change school physical activity, collaboration was an important aspect of the schools’ intervention program. Due to the structure of schools, it was necessary to recruit classroom teachers because an effective physical activity program required them to provide activity breaks for their students in the classroom (Kulinna et al., 2012; Patton, 2012).

The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* recommended policies related to physical activity in elementary and middle schools should have required the following: comprehensive, daily physical education; comprehensive health education; adequate resources, including budget and facilities, be committed for physical activity instruction and programs; the hiring of physical education specialists to teach physical education in kindergarten through 12th grade, elementary school teachers trained to teach health education, health education specialists to teach health education in middle and senior high schools, and qualified people in sports and recreation programs; and physical activity instruction and programs meet the needs and interests of all students (CDC, 1997). Despite the recommendations for these policies, it was often difficult for individual schools to establish the policies, practices, programs, and interventions necessary for an effective

comprehensive school physical activity and wellness program (Rink et al., 2010). Recent studies have identified three main target areas for organizational policies and practices for physical activity interventions within schools. The target areas included physical education, recess, and in-class activity in subject area classes (Pate, Yancey, et al., 2010). One strategy to increase physical activity that was supported by the Centers for Disease Control and Prevention (2010a) was to create or enhance access to places within the community for physical activity. Developing policies or environmental modifications that support physical activity were two ways this strategy could have been implemented (CDC, 2010a).

Quality after-school programs were defined through national standards that were utilized in a few of the states within the United States, but the existing national standards and policies did not directly address the promotion of physical activity (Beets et al., 2010). Beets et al. (2010) found “the majority of states (70.0%) lack policies/standards regarding physical activity in the after-school setting” (p. 413). Collaboration between existing state and national organizations needs to occur in order to develop a set of uniform policies and national standards. These policies and standards, which need to specifically identify physical activity within the afterschool setting, were a necessary step in distinguishing the role and the importance of physical activity as positive for the development of children. Establishing these policies and standards could have been a key element in influencing physical activity levels of children outside of the school day (Beets et al., 2010).

Factors Influencing the Implementation of Physical Activity Programs

The characteristics associated with successful school change, such as implementing and sustaining a comprehensive physical activity program in elementary schools, included: an interest in change, preparing and planning for school development, policy and institutional anchoring, administrator support, school-level management, a critical mass involved in implementation, partnerships and networking, professional development and learning, student participation, a plan to monitor change efforts, and sustainability (Samdal & Rowling, 2011; Tjomsland, 2010). In order to implement and sustain a CSPAP, school leaders, administrators, and policy-makers played a crucial role in supporting and motivating teachers to participate in school physical activity promotion. They should have created an environment that allowed for teacher collaboration in planning, sharing ideas and methods, accepting responsibilities, and meeting challenges. Last, physical activity should have been portrayed as a priority, which included the formalization of physical activity in plans, curriculum, and evaluation (Tjomsland, 2010).

Similar findings by Larsen et al. (2013) identified key influences that helped and hindered the implementation of physical activity policy via programs in school settings in Norway based upon data gathered from principals, project leaders, teachers, and students. Four factors that influenced the implementation of the physical activity policy were: formalization and anchoring; allocation of time and resources; availability of facilities in the school environment; and teachers' skills and competence. Formalization and anchoring included "whether there was a written policy, the principals', project leaders', and teachers' rationale for participating in the project, the teachers' experience of raised

awareness, and student involvement” (Larsen et al., 2013, p. 55). In addition, Larsen et al. (2013) explained:

All teachers were also responsible for meeting the objectives of daily physical activities, so that facilitation of physical activity did not depend on the teachers’ personal motivation. To make the formal anchoring of concrete activities work, a group of teachers within each subject were given time off to develop the curriculum plans and were also responsible for identifying and describing concrete pedagogical approaches to enable them to use the activities effectively in practice. (p. 55)

In regards to the availability of facilities in the school environment, primary schools had more resources, such as equipment and access to fields, playgrounds, and climbing areas, than secondary schools. One strategy schools used was to collaborate with local sports clubs, which teachers found positive and effective. In addition, all schools had their gymnasiums open during breaks to provide students and teachers a place to participate in physical activity, and this strategy also worked well and was perceived as positive (Larsen et al., 2013).

Based upon their research, Larsen et al. (2013) determined creating an awareness of the importance of physical activity for the learning climate and students’ health for principals is essential; principals were in the position to manipulate the use of time in schools, as well as motivate teachers to provide opportunities for physical activity. Parks, Solomon, and Lee (2007) found factors that influenced teachers to be motivated to implement a program that included integrating physical activity into the school day included encouragement from the principal, other teachers, the physical education specialist, and students; learning about the programs and successes of other teachers; the values and goals of the teachers and how well-matched they were; the inclusion of the

wellness or physical activity plan within the school improvement plan; and the teacher's contribution of their effort to the success of the program.

Although advocating for policies and mandated reform in education was evident, there were several barriers teachers were experiencing when attempting to implement the reforms. Mandated reforms in Ontario, Canada, at the secondary level had left teachers feeling disrespected, overwhelmed, and overworked; leading to low morale. Cutbacks in funding, a loss of professional development days, a lack of time to prepare lessons, a lack of competence teaching new curriculums, a lack of time to collaborate with colleagues, few or inadequate resources, increased workload, and pressure for student academic success had all contributed to the negative experiences of teachers related to the mandated reform (Lasky, Moore, & Sutherland, 2001).

Policies and reforms related to physical activity elicited similar teacher experiences. When examining Ontario teachers' experiences with the mandated daily physical activity programs at the elementary level, teachers reported time constraints as the biggest barrier to implementation of the program. Time constraint characteristics reported by teachers included a lack of planning time to incorporate physical activity into their classroom lessons and a lack of time to conduct the daily physical activity program (Patton, 2012). Teachers implementing a self-designed physical activity intervention in a school setting reported environmental conditions, such as peer and administrative support, and policies, such as an "academics first" mentality from administrators and colleagues, to be barriers to implementing classroom physical activity and participating fully in the intervention (Dwyer et al., 2003; Kulinna et al., 2012; Patton, 2012). "The teachers are more focused on the core subjects that have clear curricular and assessment

guidelines in place to identify students' academic success, such as math or language arts" (Patton, 2012, p. 20). Larsen et al. (2013) also found this to be true when they reported "the teachers in secondary school, though, reported more difficulties in incorporating the activities into their regular teaching time than the primary school teachers due to pressure for academic accountability and result-driven curricula" (p. 57). Overall, teachers at all levels felt pressure for their students to be successful academically, rather than focus on incorporating physical activity into their lessons. In addition, a lack of accountability from administrators led teachers to believe that, although the policy required daily physical activity, it was acceptable to exclude physical activity from their lessons and the daily physical activity program was perceived as unimportant and a low priority (Dwyer et al., 2003; Patton, 2012).

Another barrier to implementing a physical activity program reported by teachers was "they felt that they lacked competence and skills in how to integrate physical activities into their teaching in other subjects and at the same time ensure students' academic performance" (Larsen et al., 2013, p. 58). The leaders of the physical activity programs provided little training on how to facilitate physical activities during school hours, which could have contributed to the teachers' lack of confidence, competence, and skills in providing physical activity during the school day (Larsen et al., 2013), and a lack of trained personnel for safe, organized, and effective physical activity programs could be a barrier to the success of the program (CDC, 1997). When implementing school physical activity curriculum for children, teachers in Toronto expressed concerns about documents and instruction that lacked guidance and assistance to design effective lessons for physical education or physical activity. In addition, vague expectations and physical

activity frequency requirements for the program created barriers to its implementation (Dwyer et al., 2003). In an attempt to improve the knowledge and competence of teachers related to physical activity, as well as the quality and variety of physical activities implemented within a physical activity program, teachers should have been provided with professional development opportunities (Patton, 2012).

A final barrier to implementing physical activity reported by classroom teachers was a lack of sufficient infrastructure. A lack of space within the gymnasium or classrooms, inadequate or unsafe facilities, limited access to outdoor space, and a lack of equipment were factors that hindered physical activity and physical education implementation by teachers (Dwyer et al., 2003).

Evaluation of Physical Activity Programs

School and community physical activity instruction, programs, and facilities should have been evaluated regularly. Evaluations should have been used to assess a variety of areas within physical activity programs including policies, facilities, instruction, personnel, health services, and student achievement. Program evaluations, when valid and accurate, could have been used for two major reasons: (a) to measure student achievement in a variety of areas such as physical activity knowledge, development and improvement in motor and behavioral skills, and the adoption of healthy behaviors; and (b) to gain support for the programs from administrators, teachers, parents and guardians, and community members (CDC, 1997). In an attempt to evaluate the quality of an afterschool program to determine if it met national, district, and school policies and standards, the program director should have collaborated with university agents, state organizations, and national organizations (Beets et al., 2010; CDC, 1997).

Siedentop (2009) reported “that tracking of local wellness policy implementation is as important as the development of the policy itself, yet monitoring and evaluation have not been given the attention necessary and in many districts are virtually nonexistent” (p. S177). Action for Healthy Kids reported 77.0% of superintendents and 54.0% of principals felt that their schools were implementing local wellness policies adequately, however, 70.0% of school health professionals and physical education teachers disagreed (Siedentop, 2009).

The Role of the Physical Educator as the Director of Physical Activity

“The current crisis regarding childhood obesity has presented our profession [physical education] with a unique opportunity to redefine our societal role” (Bulger & Housner, 2009, p. 463). Comprehensive School Physical Activity Program leadership roles in schools have recently been titled the “Director of Physical Activity” or “Physical Activity Leader,” and leaders within the field of physical education were advocating for physical educators to fill this position (Carson, 2012; Castelli & Beighle, 2007; Kulinna et al., 2012; McKenzie, 2007).

Physical activity instruction and programs required specially trained individuals for planning, implementation, and evaluation (CDC, 1997). In an attempt to move the profession of physical education forward, as well as meet the societal demands of teaching children and adolescents how to be physically active for a lifetime to continue to slow obesity epidemic increases, Bulger and Housner (2009) proposed two strategies related to physical activity: (a) physical educators must become involved within the community and fulfill leadership roles on school wellness policy committees and (b)

physical educators must increase before-, during-, and after-school opportunities for children using a comprehensive approach to school physical activity.

Carson (2012) defined the director of physical activity (DPA) as “the school leader who coordinates all school-based CSPAP efforts” (p. 17). The responsibilities of the physical educator was expanding and standards for the preparation of beginning and advanced physical educators now “require that they collaborate with parents, colleagues, and the community to create opportunities for physical activity and healthy choices in and outside of school” (Bulger & Housner, 2009, p. 446). More specifically, Bulger and Housner (2009) went on to state:

Physical educators must work to maximize and expand available curricular space by (a) achieving high levels of moderate-to-vigorous physical activity during formal classes; (b) encouraging all teachers to incorporate more active teaching-learning strategies in the classroom; (c) facilitating physical activity during recess; (d) organizing before- and after-school programs that appeal to a broad range of children; (e) advocating for more permanent changes to the school schedule allowing for increased physical activity opportunities; and (f) encouraging increased parental involvement. (p. 459)

Despite this push for physical educators to fill the director of physical activity role, Rink (2012) stated, “even though the most likely professional to lead this program [director of physical activity] is the physical educator, most physical educators do not see directing a CSPAP as their responsibility, nor are they trained to provide this kind of leadership” (p. 15). Effective training should allow participants to gain the knowledge and the skills necessary to “effectively promote enjoyable, lifelong physical activity among young people” (CDC, 1997, p. 19). Training should also have encouraged more emphasis on participants’ enjoyment, having fun, and developing skills, as opposed to an emphasis on competition and winning. Personnel, such as teachers, coaches, employees, and volunteers should have been trained to involve parents and community in instruction and

programs that were associated with physical activity (CDC, 1997). The responsibilities of the director of physical activity included: effectively coordinate and implement a CSPAP (Castelli & Beighle, 2007; NASPE, 2008; Rink, 2012); determine components of healthy and active school models that work for their individual school; find groups of people within the school community, such as teachers, parents, students, and community stakeholders to implement components of physical activity interventions to increase physical activity (Carson, 2012; Kulinna et al., 2012); provide training for classroom teachers to implement CABs; work with recess supervisors to increase physical activity during recess (Kulinna et al., 2012); work with community stakeholders to seek funding via donations or grants; and facilitate and encourage a culture of physical activity within the school and community by providing strategies for overcoming barriers to physical activity opportunities (Rink, 2012). In addition, state policies and legislation that would mandate required physical activity time and strengthen physical education requirements in schools was increasing expectations of physical educators to be the director of physical activity, as well as be held responsible for making sure their schools meet these requirements (Bulger & Housner, 2009). The knowledge, thoughts, and concerns of physical educators regarding the new and increased expectations of meeting policy requirements and implementing a CSPAP within their schools and communities were unknown. It was unclear how motivation and professional job expectations played a role in this call for physical educators to fulfill the director of physical activity position in addition to their full-time physical education teaching position. There was little information pertaining to incentives and rewards for fulfilling the director of physical activity position, however, Carson (2012) explained:

One strategy might be to “reward” physical education teachers who are either already voluntarily assuming DPA-like duties or who become a trained DPA. Having incentives available, such as extra pay or a reduced teaching load, may also inspire disengaged physical education teacher to be more involved in the promotion of children’s physical activity levels. (p. 18)

Undergraduate Physical Education Teacher Education Programs

Within undergraduate physical education teacher education (PETE) programs, even without content regarding CSPAP programs included in curriculums, “PETE faculty have complained about the lack of content knowledge that prospective physical education teachers bring to programs and the lack of sufficient curricular space in a typical undergraduate program to address this concern” (Bulger & Housner, 2009, p. 458). The question arose of how PETE faculty were going to incorporate information on a CSPAP in already-overflowing undergraduate PETE curriculums. Despite the already full undergraduate PETE programs, PETE faculty were finding ways of incorporating CSPAP information into undergraduate programs, and students were graduating from PETE programs with the knowledge and expectation that their role as the physical education teacher included fulfilling the role of director of physical activity and implementing a CSPAP within their schools and communities (McMullen, 2010).

Theoretical Framework

Ward et al. (2007) defined theory as “a set of statements or principles used primarily to explain a phenomenon but also to predict future outcomes” (p. 22). The theory used when designing effective CSPAPs could have helped to identify the important influences on behavior associated with the reasons why physical educators implement physical activity programs and provide opportunities for physical activity within school and community settings. Social cognitive theory could have provided a

theoretical framework for designing, implementing, and evaluating programs and was one of the most widely used and most successful theoretical approaches that guided physical activity interventions for children and adolescents in school-based settings (USDHHS, 1996; Ward et al., 2007). For this particular study, social cognitive theory could have provided a useful framework for the personal and environmental factors that influenced CSPAP implementation behavior by physical educators in school and community settings.

Social Cognitive Theory

Bandura (1986) stated, in social cognitive theory “human functioning is explained in terms of a model of triadic reciprocity in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other” (p. 18). Social cognitive theory was based upon the notion that behavior was affected by these three determinants and their interaction, or reciprocal determinism, rather than the influence of each individual determinant. Figure 4 displays the theoretical relationship between the three determinants. According to Bandura (1986), reciprocal referred to “the mutual action between causal factors” (p. 23) and determinism was used to “signify the production of effects by certain factors, rather than in the doctrinal sense of actions being completely determined by a prior sequence of causes operating independently of the individual” (p. 24). The three determinants were constantly interacting with one another in multiple ways; therefore, the effects of particular factors and the interactions between them were probable rather than inevitable. “The same factor can be a part of different blends of conditions that have different effects” (Bandura, 1986,

p. 24). In addition, the influence strength each determinant exerted on other determinants was not symmetrical. Bandura (1986) explained:

The relative influence exerted by the three sets of interacting factors will vary for different activities, different individuals, and different circumstances. When environmental conditions exercise powerful constraints on behavior, they emerge as the overriding determinants...when situational constraints are weak, personal factors serve as the predominant influence in the regulatory system. (p. 24)

Cognitive and other personal factors were considered within an individual (Bandura, 1986) and included cognitive, affective, and biological events (Pajares, 2002). Behavior was shaped and directed by conceptions, beliefs, self-perceptions, intentions, expectations, and goals (Bandura, 1986, 1989). “What people think, believe, and feel affects how they behave” (Bandura, 1986, p. 25). Characteristics of situations that exist outside of an individual were environmental factors (Bandura 1986), and they also affected a person’s behavior (Glanz, Rimer, & Lewis, 2002).

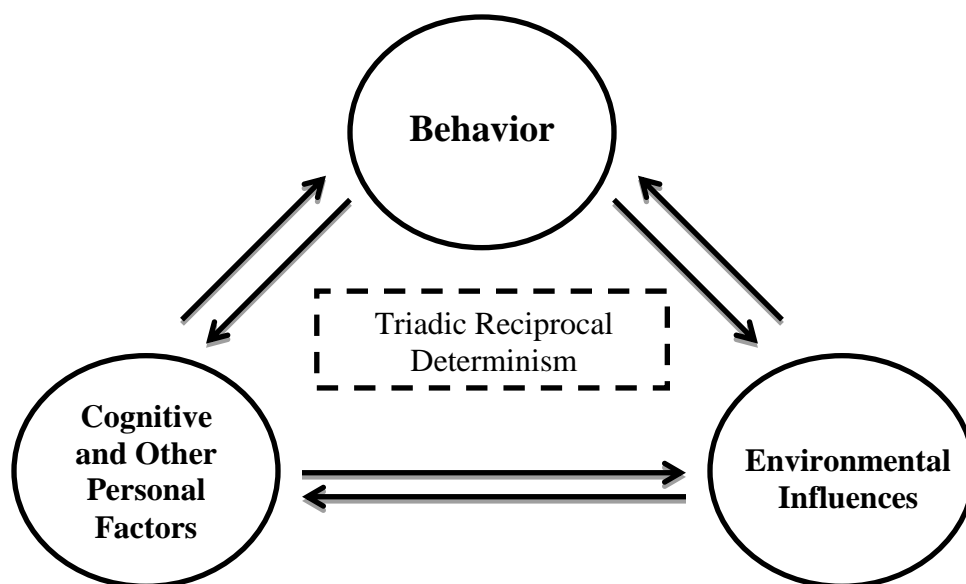


Figure 4. Theoretical relationship between the three determinants of social cognitive theory: behavior, cognitive, and other personal factors, and environmental influences (Bandura, 1986).

Cognitive and other personal factors. The cognitive and other personal factors outlined by social cognitive theory included perceived self-efficacy, behavioral capability, self-control, and expectations and expectancies (Nigg & Geller, 2012). Perceived self-efficacy was “one’s belief that one has the capability to perform a behavior that will result in an expected outcome” (Nigg & Geller, 2012, p. 257). The types of physical activity programs chosen, levels of exerted effort, and perseverance to break through barriers were all influenced by perceived self-efficacy; therefore, people were more likely to attempt the implementation of physical activity programs, to exert more effort, and to sustain their activities when they were more efficacious than those who exhibited low perceived self-efficacy (Bandura, 1986). In order to perform any given behavior, there was a certain level of knowledge and skill necessary; known as behavioral capability (Glanz et al., 2002). Physical educators needed to have the knowledge and skills to be able to effectively implement CSPAPs within their schools and communities. Larsen et al. (2013) and Lasky et al. (2001) recognized that classroom teachers’ skills and competence affected the implementation of physical activity programs and new curriculums in school settings. One intent of this study was to determine if physical educators had the knowledge, competence, and skills necessary to implement CSPAPs and fulfill the role of the physical activity director. In addition, the study explored how physical educators gained this knowledge, competence, and skill, as well as potential sources of information that could have been used to increase their knowledge and enhance their competence and skills related to implementing CSPAPs as physical activity leaders. An individual’s personal regulation of goal-directed behaviors or performance described the construct of self-control. Self-control included ones’ ability to self-monitor,

set goals, solve problems, and self-reward (Glanz et al., 2002). A physical educator's ability to exhibit each of these skills would directly affect the success and effectiveness of CSPAP implementation. Parks et al. (2007) found the implementation of physical activity programs by teachers were influenced by their individual goals for the program, as well as how well their goals aligned with the goals of other teachers in the school. This study examined if any of these self-control behaviors had an effect on the implementation and effectiveness of CSPAPs. Expectations and expectancies referred to "the anticipated outcomes of a behavior and the values that an individual places on those outcomes, respectively" (Nigg & Geller, 2012, p. 258). The values and beliefs of the physical educator related to their role and job description as a physical educator and towards the importance of physical activity in general will most likely affect whether or not physical educators provide physical activity opportunities outside of physical education classes, as well as the extent to which they provide components of CSPAPs within their schools and communities. Larsen et al. (2013) found creating an awareness of the importance of physical activity influenced the implementation of physical activity programs. If a physical educator valued physical activity and felt it was important for their students, they would most likely create an environment that promoted physical activity; however, it was the intent of this study to determine to what extent these values and beliefs did in fact play a role in the implementation of CSPAPs and the relationship between the two.

Environmental factors. Environmental factors were those factors that influenced behavior and existed external to the individual (Glanz et al., 2002). Previous research related to physical activity programs had identified several factors that fell under the environmental factor of social cognitive theory. These factors influenced the

implementation of physical activity programs in school settings and included: support, motivation, and accountability from school leaders, physical education teachers, administrators, and policy-makers; an environment that allowed for teacher collaboration; allocation of time and resources; availability of facilities and equipment in the school environment; mandated reforms; funding; professional development opportunities; workload; academic (math, language arts, etc) success of students; and the formalization of physical activity in policies, plans, curriculum, and evaluation so that physical activity was identified as a priority (Dwyer et al., 2003; Kulinna et al., 2012; Larsen et al., 2013; Lasky et al., 2001; Parks et al., 2007; Patton, 2012; Tjomsland, 2010). One purpose of this study was to determine the environmental factors that influenced, guided, and hindered the behavior of physical educators in K-12 schools related to the implementation of CSPAPs.

Behavior. The behavior construct for this study referred to the implementation of CSPAPs by physical educators within school and community settings. The purpose of this study was to examine physical educators' perspectives of and factors related to the implementation of CSPAPs and their roles as physical activity directors. In relation to social cognitive theory, the intent of the study was to examine the cognitive and other personal factors, and the environmental factors that led to a specific behavior, the implementation of CSPAPs, as well as fulfilling the role of physical activity director in K-12 school and community settings.

Future Research

The 2008 Physical Activity Guidelines for Americans provided detailed recommendations for the necessary types and amounts of physical activity in order to

maintain good health (Pate, Yancey, et al., 2010). Despite the release of these guidelines, more research was needed on a variety of components related to physical activity, physical education, CSPAPs, staff and employee wellness, recess, after-school programs, school facilities, communities, and policies. The *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* stated:

More research is needed on the relationship between physical activity and health among young people, the relationship between physical activity during childhood and adolescence and that during adulthood, the determinants of physical activity among children and adolescents, and the effectiveness of school and community programs promoting physical activity among young people. (CDC, 1997, p. 2)

In addition, it was important to gather information on the outcomes achieved by middle school physical education programs that had developed health-related and fitness club models (Siedentop, 2009) and on the effects of health promotion activities for staff and employees on the quality of health education instruction they provided or student's physical activity behaviors based on the degree of role modeling demonstrated by staff and employees (Wechsler et al., 2000). Beighle et al. (2006) and Wechsler et al. (2000) reported the physical activity of children, especially during recess and outside of school, was not completely understood and there was a need for more research within these areas of physical activity opportunities for children; specifically the number of schools that provided recess, length and frequency, supervision, scheduling, and policies regarding the implementation of recess (Wechsler et al., 2000). Studying the effects of recess physical activity and the recess environment could provide information on the effectiveness of strategies to increase physical activity time by all children during recess, thus, increasing overall daily physical activity time for children (Beighle et al., 2006; Stellino & Sinclair, 2014). Beets et al. (2010) concluded that no current research existed to determine if after-

school programs were meeting the current after-school program standards. The researchers provided several key questions guiding the future research needed to determine the value of after-school program standards in increasing the levels of physical activity in children: “Do the standards translate into policy?; Does the policy translate to practice in after-school programs?; And ultimately, do the policies and practice translate to higher physical activity levels in youth?” (p. 415). Wechsler et al. (2000) stated, “research is still needed to assess the effects that increasing the hours in which school facilities are accessible might have on student participation in physical activity” (p. 127). “In addition, evaluation studies should be conducted to assess the benefits of (and identify best practices for) developing new types of school-based physical activity facilities, such as a school fitness center” (Wechsler et al., 2000, p. 128). Pate, Yancey, et al. (2010) found it was extremely rare to find published community-level physical activity interventions that targeted children and adolescents. Research indicated that currently, there were no controlled studies that focused on children and adolescents at the community level. The degree to which state and district physical education and physical activity requirements were implemented in local schools and programmatic outcomes that were being achieved in local schools also needed to be assessed. The factors that supported how well local school districts implemented physical activity policies, and factors that tended to restrict implementation of these policies needed to be researched and understood (Siedentop, 2009). Not only was research needed on how to implement policies in school settings but also to “examine the effect of policy implementation on physical activity outcomes in children and youth” (Pate et al., 2011).

When studying the implementation process utilizing a “bottom up” design in which school teachers and administrators designed a physical activity intervention based upon their unique school needs and resources, researchers reported the need for more information to fully understand how this approach to designing physical activity programs “can inform change efforts and, most importantly, how it can best affect change in students” (Kulinna et al., 2012, p. 127). More in-depth research was needed to determine the most effective and successful strategies related to the implementation process of daily physical activity in schools. Objective measures from observation studies and document analysis may help to determine physical and organizational characteristics of schools that successfully implement physical activity programs (Larsen et al., 2013).

Although much more research was needed in a variety of individual physical activity components, it was important physical activity programs were evaluated as whole, comprehensive programs, not only for their benefits and outcomes to increase physical activity, but the process of implementing these programs within a school setting from a director’s perspective. The needs of practicing teachers must be taken into account if the profession was to make substantive change in physical education (Bulger & Housner, 2009), and therefore, changing the physical activity habits of children and adolescents. Follow-up professional development for physical educators may be necessary because teachers might spend over 30 years teaching for their careers (McKenzie, 2007) and they may be unaware of the changes and new initiatives related to physical activity in the field of physical education. Little research existed exploring the factors that influenced, guided, and hindered the implementation of a CSPAP from the perspective of the physical educator. The intent of the study was to explore potential

phenomenon that existed within a group of physical educators regarding their knowledge and implementation of a CSPAP. In order to do so, the following research questions guided the study:

- Q1 What knowledge do physical educators have about comprehensive school physical activity programs?
- Q2 What are the perspectives of physical educators regarding the implementation of comprehensive school physical activity programs?
- Q3 What factors influence, guide, and hinder the implementation of comprehensive school physical activity programs by physical educators in K-12 schools?

CHAPTER III

METHODOLOGY

The purpose of this study was to examine physical educators' perspectives of and factors related to the implementation of comprehensive school physical activity programs and their roles as physical activity directors. The intent was to explore potential phenomenon that existed within a group of physical educators across multiple grade levels (K-12) regarding their knowledge and implementation of a comprehensive school physical activity program. In order to do so, the following research questions guided the study:

- Q1 What knowledge do physical educators have about comprehensive school physical activity programs?
- Q2 What are the perspectives of physical educators regarding the implementation of comprehensive school physical activity programs?
- Q3 What factors influence, guide, and hinder the implementation of comprehensive school physical activity programs by physical educators in K-12 schools?

This chapter describes the research approach, a researcher perspective, how the participants were selected, a description of the participants and their school settings, data collection procedures, and data analysis procedures for the study. In addition, the chapter explains the components of trustworthiness, such as credibility, transferability, dependability, and confirmability, and how the study addressed each component.

Epistemology

The epistemology of the study was constructionism. Crotty (1998) defined constructionism as a worldview in which:

There is no objective truth waiting for us to discover it. Truth, or meaning, comes into existence in and out of our engagement with the realities in our world. There is no meaning without a mind. Meaning is not discovered, but constructed. In this understanding of knowledge, it is clear that different people may construct meaning in different ways, even in relation to the same phenomenon. (p. 8)

The current study was an attempt to explore potential phenomenon that existed within a group of physical educators regarding their knowledge and implementation of a comprehensive school physical activity program. In addition, physical educators' perspectives of and factors related to the implementation of CSPAPs and their roles as physical activity directors in K-12 school and community settings were examined.

Theoretical Perspective

The theoretical perspective for the study was interpretivism. The goal of interpretivist research, also described as social constructivism, was to “rely as much as possible on the participants’ views of the situation. . . . Rather than starting with a theory (as in postpositivism), inquirers generate or inductively develop a theory or pattern of meaning” (Creswell, 2013, p. 24-25). In this particular study, the search was for patterns of meaning that related directly to the knowledge of and factors that had influenced physical educators’ when implementing CSPAPs in K-12 school and community settings.

Research Approach

The research approach for the study was phenomenology. According to Creswell (2013), a phenomenological study, “describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon” (p. 76). The

research approach was considered a phenomenology because the study focused on determining any phenomenon that may have existed within physical educators' as it related to the knowledge of and factors that had influenced them to implement comprehensive school physical activity programs in K-12 school and community settings. All participants implemented one or more components of a comprehensive school physical activity program; therefore, the attempt was to capture participants' "lived experiences" and perspectives related to their involvement with the implementation of one or more components of a comprehensive school physical activity program.

Researcher Perspective

As a former physical educator and coach at the K-12 level, I implemented components of a CSPAP within K-12 school and community settings. I provided opportunities for physical activity for the students, faculty, staff, and families before school, during school, and after school. These opportunities included early morning open gym for physical activity before school started, open gym physical activity opportunities during the school day, and intramural and interscholastic programs after school most days of the week. In addition, I became involved in the local soccer club that provided physical activity opportunities for children and adolescents in the community. The organization and implementation of these programs consumed much of my time and energy during the week, as well as on the weekends. Despite the time commitment, I implemented these programs because I believed physical activity was an important component to a healthy, happy, and positive quality of life. I believed it was important to provide physical activity opportunities for all students; therefore, opportunities for

physical activity should have included competitive and non-competitive environments; individual, partner, and team sports; fitness-based and sport-based activities; and a variety of developmentally appropriate programs.

My involvement in school and community physical activity opportunities led to experiences related to the influences, guideposts, and roadblocks associated with implementing components of a CSPAP. I enjoyed spending much of my time with the children and adolescents in my school and community in active environments, and that was one of the main reasons I spent time planning, preparing, and implementing these programs. Within my undergraduate physical education teacher education program, I was educated to provide physical activity opportunities and to be an advocate for a physically active lifestyle as a part of the physical education profession, and I still believe advocating for physical education and physical activity was an essential component of being a physical educator. I provided physical activity opportunities outside of teaching physical education because I felt it was a requirement of the job of the physical educator. I valued physical activity personally and that carried over into my professional life. The majority of my motivation to implement these programs was intrinsic; however, there were a few extrinsic factors that influenced me. First, there were small monetary rewards for intramural and interscholastic programs. Second, my physical education department consisted of one other physical educator, and we had the same philosophies, beliefs, and values related to physical activity. We both spent much of our time and energy collaborating to provide these opportunities for our students, community members, and faculty/staff. Third, the school administration was very supportive of the programs I implemented, as well as open to new ideas for increasing physical activity opportunities

for the children and adolescents in the community. Last, the community collaborated in positive ways and was very open to sharing physical activity equipment, space, and facilities. I was fortunate because I did not encounter many roadblocks when implementing these programs, and I was able to easily overcome the few situations that did hinder the implementation of these programs. Unfortunately, not all physical educators are in an environment conducive to implementing physical activity opportunities in school and community settings. My personal life did not interfere with the time I had to coordinate and implement these programs, yet some physical educators may have family or friends they chose to devote their time to, thus, decreasing the time and energy available for coordinating and implementing physical activity programs. As a physical educator, I believed it was important to go above and beyond simply providing physical activity in physical education classes. I thought it was essential children and adolescents were given opportunities outside of physical education to be active. Even though all of the components of a CSPAP were important, I felt it was very difficult for just one physical educator to implement them all; and I did not feel the CSPAP was designed to be coordinated and implemented by just one individual. The implementation of CSPAPs needs to be a collaborative and comprehensive effort by many members of the school faculty/staff and the community. I believed the physical educator was most likely the faculty member within the school with the most knowledge and training related to physical activity, therefore, they should be the leader of CSPAPs in their schools and communities. In most school and community settings, the physical educator should have been the director of physical activity and be the CSPAP team leader, however, I had several concerns that arose based upon my own experiences as a leader of physical

activity programs. First, asking physical educators to go above and beyond their full-time physical education teaching position was very time-consuming and some teachers may not have been willing to spend their time coordinating and implementing CSPAPs in addition to teaching physical education. Second, there may not have been adequate funding to compensate physical educators for their time and effort in leading CSPAPs or providing physical activity opportunities within their school and community. Last, there may not have been enough support and collaboration, such as from administration or other faculty/staff, or in the form of equipment and facilities, to provide these opportunities. Nevertheless, I did believe there were effective strategies that could have been implemented to overcome these barriers.

Although I had first-hand experience implementing components of a CSPAP in a variety of settings, I have remained curious about the perspectives of other physical educators in the field. I have also been curious about how physical educators in the field thought they would be affected by the implementation of comprehensive school physical activity programs, especially if physical activity programs became a mandated policy within K-12 schools. Last, I had the opportunity to experience the director of physical activity training provided by the National Association for Sport and Physical Education. From this experience, I became interested in learning more about the perspectives of other physical educators as it related to their role in fulfilling the physical activity director positions within schools and communities, and the training associated with it.

Participant Selection

Initially, participants were solicited by an email (Appendix A) distributed using a physical education teacher list-serv through the Colorado Department of Education

(CDE). The email contained a link to an initial electronic informed consent (Appendix B) and an electronic survey (Appendix C) created using the Qualtrics survey system through the University of Northern Colorado. The purpose of this survey was: (a) to gather demographic and CSPAP information from physical education teachers in Colorado; (b) determine the willingness of potential participants to continue their involvement in the study via an interview and artifact/document collection; and (c) collect contact information from potential participants for the study. Potential participants for the study were purposefully sampled based upon the inclusion criteria, which consisted of teaching physical education in a K-12 setting at the time of sampling for the study. According to Creswell (2013), purposeful sampling meant, “the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study” (p. 156). The intent of this study was to explore potential phenomenon that existed within a group of physical educators regarding their knowledge and implementation of a comprehensive school physical activity program, therefore, current physical education teachers who had knowledge and experience implementing comprehensive school physical activity programs in school and community settings were sampled. The email was distributed electronically to 1,730 physical education teachers in Colorado by the Colorado Department of Education.

After the survey had been active for 26 days, the email (Appendix A) containing the link to the initial electronic informed consent (Appendix B) and the electronic survey (Appendix C) was distributed via email a second time to Colorado physical educators using the same physical education teacher list-serv through the Colorado Department of Education. After the survey had been active for 43 days and had been distributed to

Colorado physical educators two times, participant survey data were exported from the Qualtrics website and compiled on an Excel spreadsheet that included the following information: (a) survey start date and time; (b) survey end date and time; (c) response (yes or no) to consent to participate in the research; (d) level of physical education the participant currently taught; (e) years of teaching experience; (f) name of the city/town/location for the school at which the participant taught; (g) if the participant did or did not provide physical activity opportunities outside of physical education class; (h) a description of the types of physical activity opportunities provided outside of physical education class; (i) the willingness of the participant to complete an interview and provide artifacts/documents related to the physical activity programs they implemented within their school and community; and (j) the name and contact information (school name, school address, email address, and phone number) of those willing participants. There were 192 total responses to the survey. Survey responses that contained information reflecting participants who did not teach physical education in a K-12 setting at the time of sampling were not considered as potential participants to continue further with the study. In addition, information reflecting participants who were not willing to participate further in the study and complete an interview and provide artifacts/documents related to the physical education and physical activity programs they implemented within their school and community were not considered as potential participants to continue further with the study. Out of the 192 survey responses, 42 of those responses indicated that the potential participant met the inclusion criteria and was willing to continue further in the study. Using the Excel spreadsheet, the information for those 42 potential participants was filtered and transferred to a separate Excel sheet.

The 42 potential participants were then contacted via email (Appendix D) in order to determine an interview date, time, and location. Thirteen participants responded to the email and interview dates, times, and locations were scheduled. After approximately 2 1/2 weeks, the email (Appendix D) was sent a second time to the remaining 29 potential participants who had not yet responded to the first email. Two potential participant responses indicated that, although willing, they would not have time to participate further in the study. Three participants responded to the second email and interview dates, times, and locations were scheduled. Of the 42 potential participants, 24 did not respond to either of the two emails. Snowball sampling (Creswell, 2013) was used to identify additional potential participants from study participants who may have known individuals who could have met the participant criteria. This type of sampling was used to include participants based on the recommendations of physical educators who knew of other physical educators who taught K-12 physical education and may have been willing to participate in the study. This type of sampling was used to solicit one participant who was initially contacted via phone, and then sent the email (Appendix D) and an interview date, time, and location was scheduled. There were a total of 17 physical educators who participated in the study.

One week prior to each scheduled interview, a follow up email (Appendix E) was sent to each participant to accomplish the following: (a) confirm the interview date, time and location; (b) request that participants gather and submit relevant comprehensive school physical activity program artifacts or documents; (c) provide the CSPAP interview and artifact collection informed consent (Appendix F) in advance; and (d) provide the CSPAP semi-structured interview guide (Appendix G) in advance. The purpose of

sending the informed consent and the CSPAP semi-structured interview guide prior to the actual interview was to provide participants with an idea of the purpose, a brief rationale, and the research questions for the study, as well as prepare them for the questions that were going to be asked during the interview.

Participants

Participants included 17 current physical educators in a K-12 school setting in Colorado. Additional participants may have been included within the study if saturation of the data was not reached after including the initial participants. Saturation of the data occurred when the information related to the phenomenon was reached to a point where it began to become redundant and no new information was imminent from the data (Merriam, 2009). Saturation of the data occurred, therefore, no additional participants were included in the study. To be included within the study, participants must have been teaching physical education in a K-12 setting. Implementation of the specific CSPAP model was not included as a criterion for participation in the study. In an attempt to obtain a variety of perspectives, participant information related to years of physical education teaching experience, the level (elementary, middle, secondary, or any combination of levels) at which the physical educator taught, and the school locale was taken into consideration when selecting participants.

Participant and School Descriptions

The group of 17 participants consisted of 7 males and 10 females; 13 teachers (5 males and 8 females) at the elementary (preK-5, K-5 and 1-6) level, 2 teachers (2 males) at the elementary/middle (preK-8 and K-8) level, and 2 teachers (2 females) at the high school (9-12) level; and 7 teachers who taught in urban areas, 3 teachers in suburban

areas, 2 teachers in small city areas, and 5 teachers in rural areas within Colorado.

Teaching experience varied greatly among the group of participants. The experience of the participants teaching physical education ranged from 1 year to 42 years of experience, with the average being 15.4 years of experience. In addition, several participants had experiences separate of teaching physical education. Four participants taught in an elementary classroom, ranging from 2 years to 13 years, and averaging 8.3 years of teaching experience prior to teaching physical education. One participant was a psychotherapist for 5 years prior to his engagement in the education field as an elementary classroom and physical education teacher. Free and reduced price lunch (FRPL) eligibility ranged from 3.9% to 84.9%, with the average FRPL eligibility in the schools at 41.6% (Colorado Department of Education [CDE], 2014). None of the participants had ever attended professional development or training specific to the CSPAP model (Table 1).

Four of the participants described how their background included a lifetime of involvement in physical activity and sports, which lead to their love of movement and good fit within the physical education profession. When describing their individual backgrounds, two of the participants specifically explained that, in addition to teaching physical education, they spent their time and energy coaching within interscholastic sports programs. Eight participants indicated involvement in the physical education profession in ways other than teaching physical education. Their involvement included: coordinating and contributing to their school wellness committees/teams; fulfilling leadership positions as committee and board members of national and state physical education organizations; attending and participating in professional development and

conference opportunities at the school, district and state levels; pursuing higher education degrees related to physical education and administration; fulfilling leadership positions within their school and district, such as members of planning committees and parent/teacher associations; collaborating with district administrators to write grants; and spending time supporting their students by attending athletic and physical activity events their students participate in outside of school.

Participants taught in a variety of school environments. Twelve of the schools were public schools (10 elementary and 2 high schools). Two of the public schools (one elementary and one high school) were considered “IB” schools, meaning they offered international baccalaureate programs for their students. These schools utilized international frameworks and curricula to emphasize critical thinking, personal and academic achievement and intercultural understanding and respect. Two of the elementary public schools were participating in “pay for performance” pilot programs. “Pay for performance” programs were associated with teacher evaluation systems and providing teachers with incentives and rewards for demonstrating leadership in teaching and school involvement. Three schools were charter schools; two at the elementary level and one of those being an expeditionary learning school that included elementary and middle school students (K-8). Charter schools differed from public schools in that they were independently run and often required an application process for students to attend. Expeditionary learning schools differed even further in that their curriculums revolved around the notion that students learned through expeditions, experiences outside of a traditional classroom setting, and spending a lot of time and energy diving deep into a specific topic that integrated many subjects at one time. Expeditionary learning schools

focused on developing a school culture that emphasized character, intellect, collaboration, and respect. One elementary school was a core knowledge school, which utilized a standards-focused curriculum separate from public schools. Core knowledge schools followed a curriculum with a very specific sequence of content and skills, providing clear expectations of what students should learn, and provided highly structured environments for students. Last, one elementary and middle school (preK-8) was a school of innovation. Schools of innovation were designed to allow for the development of innovative practices and decision-making at the school level. They were given maximum flexibility by departments of education to create an individualized school plan that utilized the resources and teaching and learning approaches that best met the needs of the individual students.

Data Collection

Consent to conduct the study was approved through the university's Institutional Review Board (IRB; Appendix H). Following approval of the university's IRB, data were collected in a variety of ways so that the knowledge and perspectives of participants related to comprehensive school physical activity programs were captured fully. Data sources included: (a) an electronic survey; (b) individual semi-structured interviews with physical educators; (c) artifacts and documents, such as participant lists, participant numbers, flyers, pictures of bulletin boards, newsletters, or additional representations of existing or future physical education and physical activity programs; and (d) informal conversational interviews.

Table 1

Description of Participants

Participant	Gender	Teaching Level	Years of Teaching Experience	School Locale	School FRPL %	Specific CSPAP Education
The Coach	Male	1-6	16 PE	Suburban	82.5%	No
Bobby	Male	K-5	8 classroom 14PE	Urban	76.7%	No
Charlie	Male	K-5	5 psychotherapist 13 classroom 5 PE	Urban	12.2%	No
Carl	Male	K-8	9 PE	Urban	31.5%	No
Craig	Male	Pre K-8	12 PE	Rural	50.7%	No
Brooke	Female	K-5	11 PE	Small City	25.8%	No
John	Male	K-5	11 PE	Small City	4.6%	No
Kyle	Male	K-5	18 PE	Urban	13.9%	No
Kelly	Female	9-12	17 PE	Rural	63.9%	No

Table 1 (continued)

Participant	Gender	Teaching Level	Years of Teaching Experience	School Locale	School FRPL %	Specific CSPAP Education
Kelsey	Female	K-5	10 classroom 1 PE	Suburban	46.9%	No
Lori	Female	K-5	19 PE	Urban	84.9%	No
Mary	Female	K-5	16 PE	Rural	43.2%	No
Fred	Female	Pre K-5	2 pre K and K 21 PE and Health	Rural	70.0%	No
Phoebe	Female	9-12	30 PE	Urban	51.9%	No
Paige	Female	K-5	42 PE	Urban	26.6%	No
Sally	Female	K-5	16 PE	Rural	17.6%	No
Stacy	Female	K-5	3 PE	Suburban	3.9%	No

Electronic Survey

An initial survey was distributed to potential participants through an email (Appendix A) using a physical education teacher list-serv through the Colorado Department of Education. The email contained a link to an initial electronic informed consent (Appendix B) and an electronic survey (Appendix C) created using the Qualtrics survey system through the University of Northern Colorado. The purpose of this survey was: (a) to gather demographic and CSPAP information from physical education teachers in Colorado; (b) to determine the willingness of potential participants to continue their involvement in the study via an interview and artifact/document collection; and (c) to collect contact information from potential participants for the study. The electronic survey was only used as a means of gathering information about potential participants for the study. The email was distributed electronically to 1,730 physical education teachers in Colorado by the Colorado Department of Education and there were 192 total responses. Survey responses were not considered if the respondent did not teach physical education in a K-12 setting at the time of sampling or if they were not willing to participate further in the study. Out of the 192 survey responses, 42 of those responses indicated that they met the inclusion criteria and were willing to continue further in the study.

Semi-Structured Interviews

The interviews with physical educators were the main source of data. They were individual semi-structured interviews using the CSPAP interview guide (Appendix G). Semi-structured interviews are a mix of more and less structured interview questions. When conducting the interview, the questions were used flexibly and there was no predetermined working order, yet the CSPAP interview guide facilitated the gathering of

the necessary specific data from all participants related to the research questions (Merriam, 2009). Due to the nature of semi-structured interviews, the dialogue was in the format of a conversation related to physical educators' physical activity programs. The purpose of the interview was to determine the following: (a) the physical educator's knowledge about CSPAPs and the role of the director of physical activity; (b) the perspectives (thoughts and concerns) of physical educators regarding the implementation of CSPAPs; (c) details regarding the components of CSPAPs the physical educator implemented within their school or community, including the activities offered, when they were offered, how they were offered, where they were offered, the length of the sessions, the length of the programs, who instructed or supervised the programs, and the number of participants; (d) why physical educators did or did not implement physical activity programs; (e) the factors that had influenced the physical educator to implement the physical activity programs; (f) the factors that guided, or helped, the physical educator to implement the physical activity programs; (g) the factors that hindered the physical educator when implementing the physical activity programs; and (h) the perceptions of the physical educator regarding the role of a director of physical activity within their school or district.

All of the interviews were conducted on an individual basis and in-person at a time and location determined between the researcher and the participant. The interviews took place in a location that ensured privacy and were not overheard. Interview length ranged from 27 minutes to 1 hour and 59 minutes, with the average interview length being 1 hour and 13 minutes. The 17 interviews resulted in 20.79 hours of interview data collected. All interviews were digitally audio-recorded and transcribed verbatim using

ExpressScribe software prior to the analysis of the data, resulting in a total of 989 total pages of transcription. Last, in order to protect the anonymity of each participant, each participant was assigned a pseudonym, and each transcript was reviewed to replace the participant's name and initials with the pseudonym. Each transcript was also reviewed to detect any potentially identifying information within the transcript, including school names, school locations, or specific program titles and were replaced with vague information so the participants and their programs could not be easily identified.

Artifacts and Documents

Merriam (2009) defined the term document as, “a wide range of written, visual, digital, and physical material relevant to the study at hand” (p. 139). In this case, the documents collected were relevant to the comprehensive school physical activity programs physical educators’ implemented in their schools and communities. Examples of documents that were collected included descriptions of physical education and physical activity programs, lists of program numbers or participants, and photographs of physical activity program bulletin boards. Artifacts were “things or objects in the environment differentiated from documents that represent some form of communication” (Merriam, 2009, p. 139). The purpose of collecting artifacts and documents for this study was to provide evidence to support how the comprehensive school physical activity programs were implemented, as well as strategies physical educators’ used to enhance the effectiveness of the physical education and physical activity programs. All artifacts and documents were collected prior to the interview and served as a secondary source of data for triangulation purposes. Examples of artifacts and documents were flyers, photos of bulletin boards, websites, social media pages (Facebook, twitter), newsletters, emails, or

other forms of communication that related to the comprehensive school physical activity programs physical educators' implemented.

Informal Conversational Interviews

Data were collected during informal conversational interviews throughout the interactions with physical educators in unstructured situations, times, and locations. The conversations were very informal, and the content of the conversations and questions were not pre-determined (Merriam, 2009). The informal conversational interviews took place before or after the semi-structured interview in person, or through other forms of communication, such as email or phone conversations. Throughout the informal conversational interview, brief notes were taken, and following the interview, more extensive and detailed descriptions of the conversation were recorded. Informal conversational interviews are important because unexpected conversations about comprehensive school physical activity programs could arise at any time or any place, and the conversations could contain valuable information related to the purpose and research questions of the study. When attempting to assemble a full, descriptive perspective of physical educators regarding comprehensive school physical activity programs, every conversation, even when unanticipated, was important to develop a full, rich description of the thoughts and concerns of the physical educators who implemented these physical activity programs in their schools and communities.

Data Analysis

Merriam (2009) defined data analysis as, "the process of making sense out of the data . . . [it] involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read--it is the process of making meaning" (p. 176).

Specific procedures appropriate for phenomenology research design were used to analyze the data. Data analysis was an ongoing process throughout the collection of the data (Merriam, 2009). “Without ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed” (Merriam, 2009, p. 171). The analysis of the data identified the perspectives and factors related to the implementation of comprehensive school physical activity programs by physical educators by answering each research question. The data analysis process began with epoche, or when the researcher engaged in the process of suspending judgment and setting aside personal viewpoints related to the research study in order to become aware of and remove prejudice, bias, and assumptions related to the study (Merriam, 2009). Prior to reading and reviewing the interview transcriptions, the researcher provided a written description of potential bias, judgment and prejudice, creating an awareness of the researcher’s perspective related to the research study.

Next, in order to answer the research questions, the interview transcriptions were analyzed using two distinct yet overlapping processes of analysis derived from a grounded theoretical perspective: open and axial coding (Corbin & Strauss, 2007). Coding was defined as “the process of making notations next to bits of data that strike you [the researcher] as potentially relevant for answering your research questions” (Merriam, 2009, p. 178). Open coding occurred first and was used to analyze interview transcripts by reviewing each multiple times and making notes about their possible meaning in the margins. Open coding identified any segment of data that might be useful in answering the research questions. Each interview transcript was read multiple times and notes were made in the margin that identified segments, or quotes from the

participant that may have supported a large theme or category that was relevant to the research questions. The relevant section of the transcript was underlined to identify the most important information. After the transcript was read, it was reviewed again and a list of the notes and identifying information, such as the transcript and the line number where the notes were found, was created in a word document. The artifacts and documents were reviewed in a similar manner as the transcripts, identifying and noting any segments of information that supported the information found in the transcripts. This information was included within the list of notes in the word document for each transcript.

After the open coding phase, the interview transcripts and artifacts were reviewed additional times and more notes were made in the margins to group the open codes, called axial coding. In the axial coding phase, the goal was to systematically develop and relate categories that interpreted and reflected upon the meaning related to the research questions (Merriam, 2009). After the open coding phase, the notes from the transcript and artifacts were compared and combined to create a master list of transcript and artifact notes. Next, the master list was reviewed and notes or comments that seemed to fit together were grouped together in the document. Once the groups were formed, an overall theme, or category, was created to represent the notes and this theme “captured some recurring pattern that cuts across your data” (Merriam, 2009, p. 181). The major themes or category labels that emerged were copied onto a new word document and formatted in a table within the document. For each major theme, a new word document was created and quotes or segments of transcript and artifact information that contained evidence to support the theme were copied from the original transcript and the original artifact and into the word document. Each segment of information was also labeled with

identifying information, such as the participant's name and line numbers of the quote, so that it could be found easily in the original transcript or artifact. Each theme document was reviewed multiple times to add, combine, separate, or eliminate themes and subthemes based upon the supporting quotes and data. The original transcripts and artifacts were used as references throughout this process as well and were reviewed for more and better segments of information related to the theme or subtheme. Once all of the data were categorized and each theme and subtheme had enough evidence to support it, the resulting themes and subthemes were the findings of the study. The findings described the essence of the phenomenon being studied and answered each research question.

Following the identification of the themes and subthemes of the study, the findings were described in written format and explained the perspectives and factors related to the implementation of comprehensive school physical activity programs by physical educators by answering each research question. During this phase of the data analysis, the researcher interpreted the data. Interpretation involved "making sense of the data...abstracting out beyond the codes and themes to the larger meaning of the data" (Creswell, 2013, p. 187). The interpretation of the themes described what happened, developed a structural description of how the phenomenon was experienced by the participants, and developed and expanded upon the essence of their experiences (Creswell, 2013). For this particular study, the phenomenon related to the perspectives and factors related to CSPAPs as physical educators experienced implementing components of these programs in their schools and communities. In addition, the findings and interpretation of the data related to the perspectives and factors of physical educators'

implementation of CSPAPs were connected to the larger, existing physical activity and CSPAP literature that had been developed by other researchers.

Trustworthiness

Trustworthiness referred to the “accuracy” of study findings (Creswell, 2013), or as a way to judge the “goodness” of a qualitative study (Schwandt, 2007). It also included “how accurately the account represents participants’ realities of the social phenomena and is credible to them” (Creswell & Miller, 2000, p. 124). The quality of qualitative research was determined by four criteria: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability (Lincoln & Guba, 1985). This section describes each criterion of trustworthiness, as well as the specific strategies this research study employed to meet the requirements of each of the four criteria.

Credibility

The term “credibility” (n.d.) was defined as “the quality of being believed or accepted as true, real, or honest.” In qualitative research, credibility addressed how effectively the research findings were consistent with reality. Credibility referred to questions such as, “How congruent are the findings with reality? Do the findings capture what is really there? Are investigators observing or measuring what they think they are measuring?” (Merriam, 2009, p. 213). Researchers needed to use a variety of strategies to establish the credibility of their study (Creswell & Miller, 2000). The credibility for this research study was established utilizing four strategies: (a) triangulation; (b) member checks; (c) negative case analysis; and (d) peer review.

Triangulation. Triangulation referred to the use of multiple sources of data to confirm the findings of the research study (Merriam, 2009). “Researchers search for

convergence among multiple and different sources of information to form themes or categories in a study” (Creswell & Miller, 2000, p. 126). For this particular study, multiple sources of data collection occurred and included an electronic survey, individual semi-structured interviews, informal conversational interviews, and the collection of artifacts and documents related to the comprehensive school physical activity programs physical educators implemented within their schools and communities.

Member checks. Member checking occurred when “the researcher solicits participants’ views of the credibility of the findings and interpretations” (Creswell, 2013, p. 252). The process of member checking involved returning data, analyses, interpretations, and conclusions to all participants of the study so they could review the information for accuracy and credibility (Creswell, 2013). For this particular study, member checks were used by returning all interview transcripts to participants for their review. After each interview audio-recording was transcribed and pseudonyms replaced identifying names and information, the transcript was emailed as an attachment to the participant (Appendix I). Participants were asked to review the information and notify the researcher of any necessary changes or additions. After approximately 10 weeks, if no response was received, the email and transcript attachment was sent a second time. Approximately 6 weeks following the second email, if no response was received, the email and transcript attachment (Appendix J) was sent a third time. The third email included information identifying a specific response date, and if no response was received prior to that date, it was assumed the transcript was acceptable and no changes needed to be made. After member check email responses were received, appropriate changes or additions to the information were made to each transcript. One participant

requested changes to their transcript, appropriate changes were made, and it was sent back to the participant to check the transcript again. The participant was satisfied with the information after it had been altered.

Negative case analysis. Negative case analysis referred to the notion that “not all evidence will fit the pattern of a code or a theme...it is necessary then to report this negative analysis” (Creswell, 2013, p. 251). Negative case analysis occurred during the data analysis process and, as this process advanced, any negative or disconfirming evidence that was contradictory to the themes was noted. The purpose of negative case analysis was to provide “a realistic assessment of the phenomenon under study” (Creswell, 2013, p. 251). For this particular study, notes were made of any data that contradicted the themes as they developed and were incorporated into the analysis of the data. Negative case analysis was an ongoing process as the data analysis process occurred and was explained throughout the interpretation and discussion of the study findings.

Peer review. Peer review was a process that involved a colleague or peer examining or reviewing the methodology and portions of the raw data to assess whether the findings were credible based on the data. Typically, the peer reviewer was knowledgeable or an expert about the topic and the methodology (Merriam, 2009). For this particular study, the peer reviewers included members of the dissertation committee. Prior to the collection of data, four members of the dissertation committee reviewed the methodology of the study and made comments on the anticipated process. These comments were taken into consideration and changes to the methodology were made accordingly. Following the analysis of the data, one dissertation committee member was asked to review a few of the transcripts, artifacts, and the themes and subthemes, and then

assess whether the themes and subthemes were dependable based upon the raw transcript and artifact data.

Transferability

Transferability was “concerned with the extent to which the findings of one study can be applied to other situations” (Merriam, 2009, p. 223). Transferability of a qualitative study was established when the researcher provided an abundant and detailed description of the data. In addition, the reader must be provided enough detailed description of the data and the characteristics and context of the study so that they could compare and apply the study findings to their situation (Merriam, 2009). For this particular study, transferability was essential so that the research design and findings were applicable to other physical educators who implemented comprehensive school physical activity programs in their schools and communities, as well as physical educators contemplating the implementation of these programs in their schools and communities. Two strategies were utilized to ensure transferability: (a) rich, thick description and (b) maximum variation.

Rich, thick description. Rich, thick description referred to “a description of the setting and participants of the study, as well as a detailed description of the findings with adequate evidence presented in the form of quotes from participant interviews, field notes, and documents” (Merriam, 2009, p. 227). Within this study, a rich, thick description was used to describe the participants, as well as the setting of the study. In addition, the findings were explained in great detail and supported with evidence, such as quotes from the various types of interviews, documents, and artifacts to describe the

perspectives and factors related to the implementation of comprehensive school physical activity programs by physical educators.

Maximum variation. Maximum variation was the second strategy that was used to enhance transferability in this qualitative research. Maximum variation meant that, when selecting the sample of participants to study, there was careful consideration as to who and who was not selected as participants. Merriam (2009) defined maximum variation as “purposefully seeking variation or diversity in sample selection to allow for a greater range of application of the findings by consumers of the research” (p. 229).

Maximum variation was used to enhance the transferability of this study in several ways. First, the participants of the study were current physical educators; therefore, the study findings were applicable to physical educators and readers in fields related to physical education. Second, the study focused on the implementation of a specific program and the components of this program, the comprehensive school physical activity program; therefore, readers who were interested in the perspectives and factors related to the implementation of comprehensive school physical activity programs by physical educators may benefit from the findings of this study. Third, the participants were purposefully sampled and snowball sampled to include physical educators with different years of teaching experience (1 to 42 years; average of 15.35 years), physical educators who taught at various levels (13 teachers at the elementary (pre K-5, K-5, and 1-6) level, 2 teachers at the elementary/middle (pre K-8 and K-8) level, and 2 teachers at the high school (9-12) level), and physical educators who taught in various school locales (7 teachers who taught in urban areas, 3 teachers in suburban areas, 2 teachers in small city areas, and 5 teachers in rural areas). Using a sample of participants with such diversity

increased the applicability of the study findings to physical educators of various teaching experience, those who taught at all K-12 levels, and those who taught in various school locales (urban and rural).

Dependability and Confirmability

In qualitative research, it was essential that the results of the study were consistent with the data collected, also known as the “dependability” of the study (Merriam, 2009). Merriam (2009) stated, “A researcher wishes outsiders to concur that, given the data collected, the results make sense--they are consistent and dependable” (p. 221). Confirmability, although similar to dependability, was slightly different in that dependability was concerned with the “process,” or the decisions and methodological changes that occurred within a study, while confirmability was concerned with the “product,” or the findings and interpretation of the data within a study (Lincoln & Guba, 1985). The researcher utilized two strategies to ensure dependability and confirmability for this study: (a) audit trail and (b) researcher perspective.

Audit trail. An audit trail, as defined by Merriam (2009), was “a detailed account of the methods, procedures, and decision points in carrying out the study” (p. 229). The audit trail should have included information such as the methods of the study, how data were collected, how the analysis of the data took place and how categories originated, changes or modifications to the overall methodology, and how decisions were made throughout the study. A written audit trail, or research journal, that documented all steps within the research process, researcher reflections, researcher questions, and decisions that were made as problems, issues, or ideas related to data collection and data analysis

developed throughout the study was kept. Information as to why specific practices were carried out and decisions were made during the research process were also included.

Researcher perspective. The researcher's perspective would "explain their [the researcher's] biases, dispositions, and assumptions regarding the research to be undertaken" (Merriam, 2009, p. 219). This would allow readers to have a better understanding about how the researcher may have reached a particular explanation of the data, as well as any experience, bias, or prejudices that could affect the interpretation of the data (Creswell, 2013). In order to explain the perspective of the researcher for this study, the researcher explained any past experiences, bias, judgments, dispositions, or assumptions related to comprehensive school physical activity programs in written format prior to the collection of the data.

Overall, trustworthiness of the research was established utilizing four criteria: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability (Lincoln & Guba, 1985). In order to meet the requirements of each of the four criteria, specific strategies were used throughout the study. These included triangulation, member checks, negative case analysis, and peer review to establish credibility; rich, thick description, and maximum variation to establish transferability; and audit trail and researcher perspective to establish dependability and confirmability.

CHAPTER IV

RESULTS

The purpose of this study was to examine physical educators' perspectives of and factors related to the implementation of comprehensive school physical activity programs and their roles as physical activity directors. The following research questions guided the study:

- Q1 What knowledge do physical educators have about comprehensive school physical activity programs?
- Q2 What are the perspectives of physical educators regarding the implementation of comprehensive school physical activity programs?
- Q3 What factors influence, guide, and hinder the implementation of comprehensive school physical activity programs by physical educators in K-12 schools?

After exploring physical educators' perspectives regarding CSPAPs, results indicated, although there was limited knowledge of the formalized CSPAP model, physical educators were implementing multiple components described within the CSPAP model. This section first describes the current context of CSPAP implementation, then explains several major themes that emerged from the data.

The Current Context of Comprehensive School Physical Activity Program Implementation

Comprehensive School Physical Activity Programs (CSPAPs) were introduced in 2008 to provide a systematic approach to helping children achieve the recommended 60 minutes of MVPA each day. The CSPAP model included physical activity opportunities

in five major areas: quality physical education (QPE); family and community; school-based physical activity opportunities; before- and after-school physical activity; and wellness for school employees (AAHPERD, 2011b; CDC, 2013; NASPE, 2008; Rink et al., 2010). After exploring physical educators' perspectives, they were unaware that a model for offering physical activity opportunities existed and were inadvertently implementing components of CSPAPs in their school and community settings. Despite the grade level taught, the majority of the participants (76.0%) were implementing physical activity programs in all five components outlined in the CSPAP model (Table 2), 12.0% were implementing 4 of the 5 components and 12.0% were implementing 3 of the 5 components. Two CSPAP components were implemented by all participants, which included quality physical education and physical activity during the school day. Physical activity programs before and after school were implemented by 16 out of the 17 participants (94.0%). Physical activity programs that involved school staff were implemented by 15 out of the 17 participants (88.0%). Last, physical activity programs that involved family and community members were implemented by 14 out of the 17 participants (82.0%; Table 2). The following sections describe how participants implemented each of the five CSPAP components (quality physical education, physical activity during the school day, physical activity before and after school, physical activity that involved family and community members, and physical activity that involved school staff members) within their school and community settings.

Table 2

Comprehensive School Physical Activity Program [CSPAP] Model Components Implemented by Participants

Participant	Quality Physical Education	Physical Activity During the School Day	Physical Activity Before and After School	Physical Activity Involving Family & Community Members	Physical Activity Involving School Staff	Number of CSPAP Components Implemented
The Coach	Yes	Yes	Yes	No	Yes	4/5
Bobby	Yes	Yes	Yes	Yes	Yes	5/5
Charlie	Yes	Yes	Yes	Yes	Yes	5/5
Carl	Yes	Yes	Yes	Yes	Yes	5/5
Craig	Yes	Yes	Yes	Yes	Yes	5/5
Brooke	Yes	Yes	No	No	Yes	3/5
John	Yes	Yes	Yes	Yes	No	5/5
Kyle	Yes	Yes	Yes	Yes	Yes	5/5
Kelly	Yes	Yes	Yes	No	No	3/5
Kelsey	Yes	Yes	Yes	Yes	Yes	5/5

Table 2 (continued)

Participant	Quality Physical Education	Physical Activity During the School Day	Physical Activity Before and After School	Physical Activity Involving Family & Community Members	Physical Activity Involving School Staff	Number of CSPAP Components Implemented
Lori	Yes	Yes	Yes	Yes	Yes	5/5
Mary	Yes	Yes	Yes	Yes	Yes	5/5
Fred	Yes	Yes	Yes	Yes	Yes	5/5
Phoebe	Yes	Yes	Yes	Yes	Yes	5/5
Paige	Yes	Yes	Yes	Yes	Yes	5/5
Sally	Yes	Yes	Yes	Yes	Yes	5/5
Stacy	Yes	Yes	Yes	Yes	Yes	5/5

Table 2 (continued)

Participant	Quality Physical Education	Physical Activity During the School Day	Physical Activity Before and After School	Physical Activity Involving Family & Community Members	Physical Activity Involving School Staff	Number of CSPAP Components Implemented
Total	17 Yes (100.0%)	17 Yes (100.0%)	16 Yes (94.0%)	14 Yes (82.0%)	15 Yes (88.0%)	13 5/5 (76.0%)
	0 No (0.0%)	0 No (0.0%)	1 No (6.0%)	3 No (18.0%)	2 No (12.0%)	2 4/5 (12.0%)
						2 3/5 (12.0%)

Quality Physical Education

All of the teachers were engaged in the teaching of physical education in their schools. Although emphasis was not placed on determining if teachers' physical education programs met the requirements of a quality program, physical educators described aspects of their physical education programs that aligned with the components of a QPE program. The National Association for Sport and Physical Education (2004) described the components of a quality physical education program as providing an opportunity to learn, meaningful content and appropriate instruction.

Providing an opportunity to learn included appropriate instructional periods (150 minutes per week for elementary and 225 minutes per week for secondary) and a developmentally appropriate curriculum taught by a qualified physical education specialist (NASPE, 2004). Each physical education program was unique and class time ranged from 30 minutes to 90 minutes per instructional period. Frequency per week ranged from 1 day to 5 days, and classes rotated on a 3-day, 4-day, 3-week, 4-week, or per semester basis. The Coach explained, "I see every class every three days, six classes a day; first, second, third, fourth, fifth, and sixth. So they are on a three-day rotation; art, music, PE, art, music, PE." Some of the schedules were a bit more confusing; Kelly explained her weekly physical education schedule,

We see them [students] on Mondays, and we see them probably for about a 30 minute block because Mondays are our early release schedule, so it's not very long and by the time we dress out, on both ends of the block, we're down to about 15 minutes and it is so fast on Mondays; it's crazy. On Tuesdays and Fridays we see them for about 40 to 45 minutes on both of those days . . . then on Wednesdays and Thursdays, they have split into long 90 minute blocks, so it's crazy. I don't see them both those days, I would see them like one period, one long 90 minute period on either a Wednesday or a Thursday, so every day is something different.

Not all physical education programs met the quality time requirements, and this was not surprising as it was consistent with findings by Turner, Johnson, Slater, and Chaloupka (2014) in that only 20.0% of elementary physical education programs offered daily and/or ≥ 150 minutes of physical education. Although participant backgrounds and previous experience varied, all of the participants were qualified physical education specialists.

A quality physical education program that provided meaningful content would have addressed all of the national standards (Figure 5), offered a variety of physical activities, provided education in the psychomotor, cognitive, and affective domains, and promoted regular physical activity outside of physical education and throughout the lifetime (NASPE, 2004). Physical education national standards “reflect the content (knowledge and skills) that we expect students to learn in physical education” (SHAPE America, 2014, p. 4) and should be the result of a quality physical education program. Participants reported their physical education programs adhered to state and national standards and included the following content: health-related components of physical fitness activities such as fitness games, weight lifting, crossfit, yoga, and assessment of physical fitness levels (standards 1 and 3); individual and lifetime activities such as swimming, recreational activities, dance, rhythmic movement, jump rope, and tennis (standard 1); fundamental movements and skills following a skill themes model (standard 1); sport based skill development such as soccer, basketball, floor hockey, volleyball, lacrosse, and flag football (standard 1); game skills, strategies and tactics following a tactical games model, including small sided and lead up games, team sports, and racquet activities (standards 1 and 2); and affective components such as cooperation, social

education, emotional education, communication, leadership, followership, support, and sportsmanship through a sport education model (standards 4 and 5). “As far as activities or units that I teach, at the elementary level, it’s skill themes, so they’re learning the basic movements and fundamentals of movements and basic skills” (Stacy). Mary described her program, “I do a lot of getting along, sharing, and team building with all grade levels. I do the basic sports, basketball, soccer, football; show them some of those skills. We do jump roping units and a dancing unit where I combine with the music teacher.” John provided a sample year-long block plan that outlined his physical education program content and essential questions aligned with the state standards (Figure 6). Physical education teachers at the elementary level were responsible for teaching and reviewing recess activities, game rules, and etiquette. Paige explained,

I’m in charge of teaching the official rules for recess games so there are not so many complaints. Soccer, wall ball, international, because we’re an international school, we have to play international four square, and tetherball...so I get to teach those...I made copies of the rules for all the teachers, for all the aids that do recess duty so everybody would be on the same page. I set up the games in PE and we actually played them, we went over the rules and played the games with the rules so they could get all the kinks worked out and they know how to play them right.

National Standards for K-12 Physical Education	
Standard 1	The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.
Standard 2	The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance.
Standard 3	The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
Standard 4	The physically literate individual exhibits responsible personal and social behavior that respects self and others.
Standard 5	The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

Figure 5. The national standards for K-12 physical education (SHAPE America, 2014).

Appropriate instruction, defined as, “full inclusion of all students, maximum practice opportunities for class activities, no use of physical activity as punishment, and well-designed lessons that facilitate student learning” (NASPE, 2004, p. 6) was another indicator of quality physical education. Physical educators’ verbal descriptions emphasized the importance of creating positive learning environments where all students could practice and improve psychomotor, cognitive and affective skills, as well as experience success. Sally described how she emphasized the importance of teaching students to love movement when she stated,

I think that is one of the things I try to do with the kids; we are not all going to be professional athletes, but love what you are doing and making it [physical activity] feel good so that they take it into their lifetime activity. Just loving movement is my main focus.

Physical education lessons were designed to maximize participation, practice, student choice, physical activity time, and student learning. Carl explained the important role of physical education in developing physically educated individuals and providing various opportunities for children so they could find a physical activity they wanted to pursue,

There are things we are offering as physical educators and not every kid loves this game, or not every kid is feeling super successful with this activity, but they really want to do some swimming, and they really want to keep on with swimming through their years and that is physical activity . . . but they need to have their own choices as far as what they want to get better at and pursue, whether it is martial arts or competitive soccer or gymnastics...they have to have opportunity and choice to do the physical activity things that they want to do. . . . I can't say that if a kid has physical activity four times a week that they are being physically educated; they are not at all; I mean there are great things about unstructured play and enrichment [after school activities], but they are not getting a quality physical education.

Last, physical educators made every attempt to maximize physical activity time. “If I have them for 45 minutes, like if it was in a perfect world, hopefully 35 to 40 minutes of that they would be physically active doing something” (Lori). Ultimately, teachers wanted their students to reap the benefits of a quality physical education program and become physically literate individuals who had “the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity” (SHAPE America, 2014, p. 11).

2013 SEASON

	Standard 1		Standard 2	Standard 3	Standard 4
	SKILL		HEALTH	CHARACTER	SAFETY
1	Training Camp				
2	Pre Season Test				
3	Frisbee	Throw	Which specific activities might affect your body?	Why is it important to be polite when you lose?	How are safety rules the same for the playground and gym?
Sept 4	Baseball	Catch			
5	Soccer	Kick			
6	Will understanding these skills allow for participation in other activities later in life?		Does your body feel different after you jump than after you run?		Does the time of year matter when cooling down after exercising?
7	Tennis Ping Pong	Short Handle			
8	Lacrosse Hockey	Long Handle			
9	Why would someone want to know how to do the same skills in different ways?		How do you face challenges and celebrate successes in physical activity?	What can losing a game or activity allow one to learn that winning can't?	
10	Soccer Basketball	Dribble			
Oct 11	Volleyball	Volley			
12	How is dribbling a soccer ball different from dribbling a basketball?		Which activities can you do for the longest time?		If nonviolence and respect for others is so important, why do we play dodgeball?
13	Run	Speed			
14	Dodgeball	Dodge			
15	Which is more important agility or speed? Why?		Can one have muscular strength without muscular endurance?	Why is it important to have good behavior?	
16	Handstand	Balance			
Nov 17	Gymnastics	Body Transfer			
18	How can one perform a skill without thinking about it?		Which component of skill related fitness is the most important and why?	Why is sharing sometimes difficult?	What's the value of having special footwear for activity?
19	Yoga	Flexibility			
20	Climbing	Strength			
21	Aerobics	Cardio			
22	Which body parts are unable to move?				
Dec 23	Game Play		Health Quiz	Coach	Referee
24	Skills Test				
25	Health & Character Quiz				

2014 SEASON

	Standard 1		Standard 2	Standard 3	Standard 4
	SKILL		HEALTH	CHARACTER	SAFETY
Jan 1	Which body parts are unable to move?		Which component of skill related fitness is the most important and why?	Why is it important to be polite when you win?	How are safety rules different for the playground and the gym?
2	Gymnastics	Flexibility			
3	Hula Hoop	Strength			
4	Jump Rope	Cardio			
5	Will understanding these skills allow for participation in other activities later in life?				
6			How do you face challenges, overcome failures, and celebrate successes in physical activity?	Why is sharing sometimes easy?	
Feb 7	Beam	Balance			
8	Dance	Body Transfer			
9	Why would someone want to know how to do the same skills in different ways?				
10					
11	Locomotor	Speed	Does your body feel different after doing different cardio activities? Explain	What can winning a game allow one to learn that losing can't?	How can dodgeball be played without violence and disrespect?
12	Tag	Dodge			
Mar 13	Which is more important agility or speed? Why?				
14					
15	Handball	Dribble			
16	Basketball	Volley	Which activities can you do for the longest time? The shortest time?	Why is resolving conflicts more important than winning a game?	
17	Hacky Sack				
18	How is dribbling a soccer ball different from dribbling a basketball?				
Apr 18					
19	Racquetball	Short Handle			
20	Hi-Li	Long Handle	Can one have muscular strength without muscular endurance? What about the other way around? Explain	Why is it important to have good behavior? Especially in a group?	Which season should you cool down the longest after exercising?
21	Baseball				
22	Golf				
23	How can one perform a skill without thinking about it?				
24					
25	Horseshoes	Throw	Name 4 different activities that might affect your body 4 different ways?	What is produced from good behavior?	Should students be able to participate in activity if they are wearing incorrect shoes?
26	Bowling				
27	Soccer	Catch			
28	Football	Kick			
29					
May 25	Game Play		Fitness Calendar	Coach	Referee
26					
27	Skills & Safety Test				
28	Health & Character Test				
29	Field Day				

Figure 6. A sample year-long physical education block plan.

Community and Family Involvement

Fourteen out of the 17 participants (82.0%) offered physical activity programs that involved family and community members. Physical activity participation outside of school played an important role in helping children meet physical activity recommendations and live healthy, active lifestyles; therefore, CSPAPs encouraged collaboration with organizations and families within the community (CDC, 1997; NASPE, 2008; Rink et al., 2010). In addition, partnerships with families and community members had the potential to increase the physical activity levels of adults within the community. When studying physical activity reform using the CSPAP framework, Centeio, McCaughtry, et al. (2014) found physical activity levels of parents increased significantly, indicating “some bidirectional impact between the school initiatives and adult PA levels” (p. 587). Although participants might not have been aware of the potentially profound impacts they made on the adult populations in their communities, they involved family and community members in physical activity opportunities in several of ways. First, family members were invited to participate in physical activity opportunities. Fred explained, “I had a parent night, a family fun night. We came in and we did games, we did exercises.” This also occurred in a community setting. Physical educators sought to engage family and community members in physical activity by organizing community events. For example, Carl described how he did this,

This will be the second year that we’ve done a school run . . . there’s about five or six of us on the committee that help support this every year, and so that’s coming up here pretty quick, and anybody that wants to come out and do it, anybody in the community, can.

A sample of the flyer distributed to promote the event reinforced the community nature of the event (Figure 7).

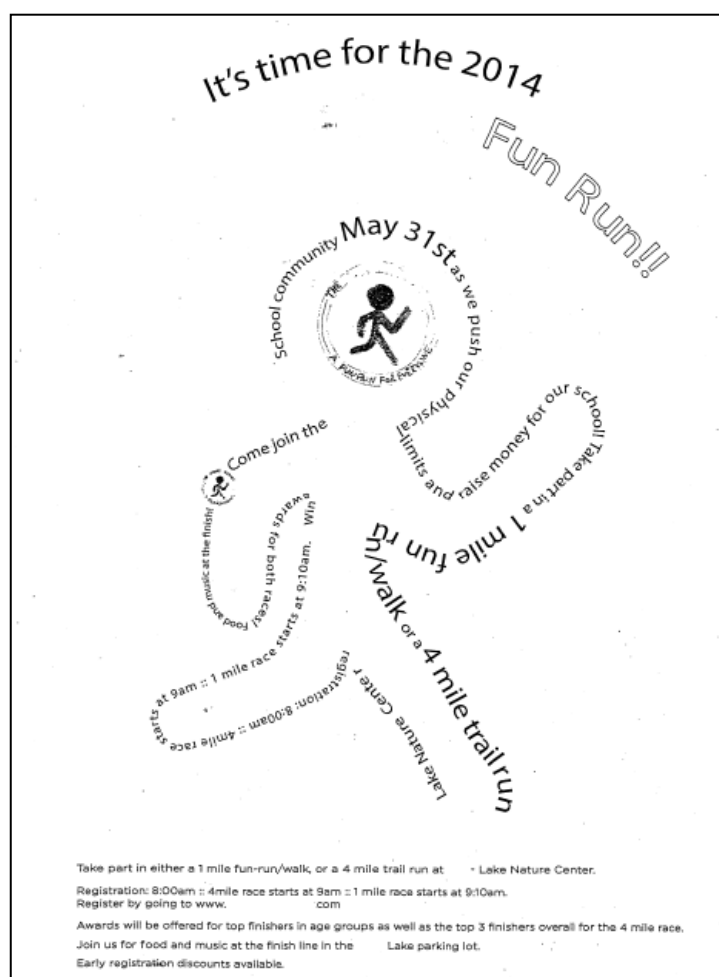


Figure 7. A sample flyer for a community fun run and physical activity opportunity.

Second, physical educators invited family and community members to the school to engage them in their children's learning, thus, linking the physical education program and home. Bobby collaborated with the music teacher to teach his students dance, which included a culminating activity at the end of the unit, and families and community members were invited into the school to observe the culminating activity. He explained,

We do a huge [collaborative dance with music classes] show for the parents. It's very cool . . . on the final Friday [of the dance unit], all day long during their PE times, parents come and watch them do their four dances that they've been working on for three weeks. It's huge; we get more parents for that than open house. The stage is packed with rows and they're lined all the way around the gym watching. (Bobby)

Bobby sent information to each of his students' families inviting them to participate in this special event. The invitation (Figure 8) highlighted the integration (physical education and music classes) and developmental appropriateness (single class scheduling) of the physical education program.

Dance Demonstration Day!

Friday, February 14 is Elementary's Dance Demonstration Day. Every class has been working very hard for the last three weeks getting ready for this special day. We would like to invite you (and grandparents too!) to watch your child show off their dancing skills. Each class will be dancing during a specific Music/PE time. So come on in, sit on the stage, and watch your child boogie!

PE/Music Schedule

8:05-8:35	5 th Grade
8:35-9:05	4 th
9:05-9:35	4 th
9:35-10:05	3 rd Grade
10:05-10:30	K
10:30-10:55	K
10:55-11:25	1 st
12:55-1:25	1 st
1:25-1:55	2 nd
1:55-2:25	2 nd

Thank You,

Figure 8. Invitation to parents and families to watch their children perform in a collaborative (physical education and music) culminating dance show.

Students were prepared and encouraged to use the physical activity knowledge and skills they learned in school to participate in physical activity outside of school with their family and community members. This was especially important because students accumulated most of their physical activity outside of school (Brusseau et al., 2011) and

had the potential to inspire adults to participate in physical activity. For example, Charlie explained,

I teach them [the students] how to set up games in their neighborhood. I teach them what to do and how to train others; getting their parents [involved]. I had a Pakistani family whose daughter taught them how to play football over the weekend; the whole family came in and the daughter was teaching the family to play football. So trying to get the families involved.

In addition, Lori said, “Today I’m reviewing it [a local running route] with them [the students] because we are getting closer to summer, so they can come to the school and walk it with their families and know the trail.”

Last, even if parents and community members did not want to physically participate in physical activity, they were invited to be a part of the physical activity environment as volunteers during events such as before- and after-school physical activity programs and field days. When describing the physical activity opportunities that required additional help, John added, “As far as parents, to be honest, the parents here are extremely helpful, we have more volunteers; out of the 550 kids, we probably have 400 volunteers come in here, in and out all the time.” The adult volunteers were essential components of the physical activity opportunities and the large, whole-school events would have been difficult to implement without their support.

Physical Activity Opportunities During the Academic School Day

All of the participants were involved in implementing physical activity opportunities during the school day. This included structured and unstructured time for physical activity during the school day (NASPE, 2008). Research indicated recess and classroom-based physical activity were effective in contributing to and increasing children’s physical activity levels during the school day, providing children opportunities

to achieve the recommended 60 minutes of daily MVPA (Beighle et al., 2006; Goh et al., 2014). In addition, children today have faced barriers to physical activity participation outside of the school setting, such as lack of safety and lack of opportunity in the home environment; therefore, school staff felt it was “the school’s responsibility to provide opportunities for children to be active” (Huberty, Dinkel, Coleman, Beighle, & Apenteng, 2012, p. 989). Physical activity during the school day was offered or supported in four ways by these teachers: recess or open campus lunch; providing classroom-based physical activity and physical activity breaks; morning physical activity; and large, special events, such as track meets, track days, and field days; and was consistent with the recommended ways in which physical activity should be implemented throughout the school day (CDC, 1997; NASPE, 2008, 2013; Orlowski et al., 2013).

Although the frequency per day and length of recess time varied for each individual school, recess was provided for students at the elementary level on a daily basis. At the secondary level, students were provided with a break for lunch, which included an open campus where they could walk to and from the school campus or participate in other physical activities. The Coach described recess logistics for his school, “They get 30 minutes, 30 minutes total, which includes the lunch, so most of the kids usually eat within a 10 minute period, not even that, and they want to get out there and just play for as long as they can.”

A second way physical activity was incorporated into the school day was in the classroom; either incorporating physical activity into an academic lesson to support and enhance learning of the academic content, or using physical activity as a short break from academic learning to expend energy and refocus. The Coach stated,

They [the classroom teachers] run them obviously, but they [the physical activities] are just meant to be like little 10 minute, get the kids up a little bit; a lot of the time they [the classroom teachers] will tell me if they're reading a story, "the bear was walking through the woods," so you [the students] have to walk like the bear or whatever, just in the classroom.

When students needed a short break from learning, teachers would provide them with opportunities to expend their energy for a short period of time. "During the school day, maybe one or two classes, fourth grade, they will have their kids run around the track" (Bobby). Lori provided the classroom teachers with physical activity sticks, or physical activity ideas students could do in the classroom. "We gave them sticks with [physical] activities on them that kids can pull out, and they can just do them for 30 seconds to a minute." In many instances, the physical educator was the individual providing physical activity ideas and resources for the classroom teachers, which encouraged and motivated them to get their students physically active in the classroom.

Providing physical activity just as school was starting at the beginning of the day was a third way in which physical educators promoted movement. This occurred mainly at the elementary level. "The wellness team is doing 'dream' time, which means 'drop everything and move,' first thing in the morning, just after morning announcements. They [the classroom teachers] would put on a little Zumba video or something and do that" (Paige) and "During the school day on Fridays we currently do what's called a Jammin' Minute, so the whole school gets up and we do those activities . . . during our morning announcements we listen to music and we do it that way, as a whole school" (Mary).

Last, teachers organized and contributed to large, special events that allowed for physical activity, typically lasting several hours to several full days, for many students

and staff across grade levels within one school, or even involving many schools. One type of large, special event was a field day. Field days, offered primarily at the elementary level, included a day full of fun, enjoyable, random physical activity stations organized by the physical educator. Most field day events were non-competitive and included teachers, staff, faculty, families, and community members in the fun. Lori described her field day,

We do stations at my school and we've done a fall field day . . . we have a really large area surrounding our school, so we do kindergarten, first and second in the front, and third, fourth and fifth in the back because it's bigger . . . it's [many physical activities] are novel on field day. They love the parachute which we do things with parachute in [PE] class, but there's a game called 'sharks and lifeguards' that we play on field day and they look forward to that because it's different and they don't get to play it in PE . . . with the little kids we do lots of skill things like, I have a lot of bowling pins, so they're going to work on their underhand rolling . . . and they have choices, they can use a small Nerf football or a round ball or a yarn ball . . . sometimes they get to do a water station, which is something I don't normally do in physical education but do on field day . . . so it was really fun . . . it's all very activity based.

A second type of large, special event was track meets or track days where elementary and middle school students would have the opportunity to participate in track-related physical activities in friendly or competitive environments. The level of competition associated with these events varied depending upon the grade level; healthy competition and learning how to manage the ups and downs of competition were incorporated in the upper elementary levels, while physical activity participation just for fun and enjoyment was encouraged in the lower elementary levels. One type of track meet involved students participating against other students within their school. Brooke explained,

It's a small little thing; it's only like two hours for each grade level; boys compete against boys; girls against girls; we do a 50-meter dash, a 100-meter dash, a softball throw and a long jump. I just put them in heats and they just run against

those people. We give out first, second, and third for each heat, and then for each field event we do. That's about two hours and each grade comes out; kindergarten does not do it, so it's first through fifth, each grade comes out and we run a small little track meet. That's in the fall and that takes up two days.

Other types of track meets involved students participating against students from other schools. Bobby explained,

At the end of the school year, the last week and a half, we have an all-district elementary track meet at a local high school. We select our top two in every traditional field event and running event, boys, girls, and take them to that all day long track meet.

Multiple special events were offered to accommodate the needs of all students, particularly regarding levels of competition. For example, a school would participate in a district-wide track meet specifically designed for competitive, athletic, higher skilled upper elementary students; a school-wide track day would be offered for less competitive or non-competitive students; and a non-competitive field day would be offered and designed to include everyone. Overall, opportunities for all students and staff to be physically active during the school day were offered and supported.

Physical Activity Opportunities Outside of the Academic School Day

Sixteen out of the 17 participants (94.0%) offered physical activity programs outside of the academic school day. Research indicated physical educators could advocate for increased physical activity participation outside of the academic school day by incorporating physical activity into traditional before- and after-school programs, intramural sports/activities, interscholastic sports/athletic programs, active transport to and from school, physical activity clubs, youth sports, and utilizing joint use agreements for access to physical activity facilities (playgrounds, gymnasiums, fitness facilities;

Beighle & Moore, 2012). Although not all of these strategies were utilized, there were three that resonated when offering physical activity opportunities before and after the academic school day: (a) open gyms, (b) clubs and intramurals, and (c) interscholastic athletic programs.

Open gym or activity times where students, faculty, and staff could use the gym or simply participate in physical activities of their choice was one way physical activity opportunities outside of school were provided at all grade levels. Charlie stated, “They [students] can come in [to the gym] 15 minutes before school starts and do whatever they need to do.” Carl did something similar at his school,

Before school on Wednesdays, we do every year a Wednesday morning fun run, it’s a walk/run . . . there’s an open invite, your round, rain, snow, shine, that before school starts at 8:10, so from 7:50 to 8:10 am, there’s that 20 minutes where I’m outside . . . we walk and run outside the campus fence around this block; three times around is a mile, and so even if they walk it, they can usually do a mile in about 20 minutes.

A second, slightly more structured type of physical activity opportunity was clubs and intramurals. This strategy provided school members with various physical activity opportunities that usually had a specific focus such as running, jump rope, mountain biking, yoga, dance, or team games and sports such as soccer, ultimate frisbee, floor hockey, or basketball. Clubs were typically offered at the elementary level in a non-competitive environment, while intramural physical activity programs were typically offered at the upper elementary and middle levels in an environment that incorporated friendly competition between teams. Clubs and intramural physical activity programs were offered both before- and after-school. These programs varied greatly in their frequency per week and depended mostly on how much time the physical educator had available or was willing to spend supervising the programs. They also varied in length of

time per session, but most lasted approximately 30 to 60 minutes. Multiple clubs and intramural opportunities were offered at various times throughout the school year. Fred provided the physical activity clubs permission slip (Figure 9) that she distributed to all of her students. It included the days, dates, and times of all of the clubs she offered at her elementary school. She also explained,

We had to do something different; we went from mileage club, because we couldn't do mileage club, we were wearing out shoes too fast, we had to think of different things. So then we put in jump rope club on Tuesday, and then we put in cup stacking on Wednesday, and then let's go back to mileage on Thursday, but then on Friday let's do gym rats. I have gym rats on Friday and everybody wanted to be a gym rat . . . gym rats are what I used to, my dad used to call me a gym rat; you hang out in a gym and do anything . . . they can practice basketball, we reserve half of the gym for basketball and on the stage is the cup stacking and on this side will be hula hoops and we have jump rope over here. We have specific areas that the kids can go.

Interscholastic athletic programs were offered primarily at the secondary (middle and high school) level and included a wide variety of sport-based physical activity opportunities before school, such as during preseason training, as well as after school, such as during practices and games. Phoebe, who taught at the high school level, described the opportunities at her school,

Oh gosh, there's tons of sports offered . . . Fall would be, guys would be football, soccer, cross country, tennis; guys also have swim, basketball, lacrosse. They started a rugby team, track, and baseball. The women's all the same, they have lacrosse; the only thing would be football and volleyball, that's different. I don't think there's a girl's rugby right now, but pretty much any sport.

Physical educators were involved with interscholastic athletic programs in a variety of ways, including as athletic directors and coaches. Their participation in these athletic programs provided physical activity opportunities for children and adolescents outside of the school day. "Most of the PE teachers are coaches" (Kelly) and "At one school I was the athletic director for the middle school sports and so we offered boys and girls

basketball, cross country and volleyball” (Stacy). In conclusion, physical educators found a variety of ways to offer physical activity opportunities before- and after-school.

Dear Parents:

There are several opportunities for your child to add valuable movement and skills activity into their daily schedule at _____ this year.

Mileage Club will meet on Monday and Thursday mornings from 7:25 – 7:55 and Tuesdays after school from 3:15 – 3:45. Please be timely to pick students up immediately at 3:45 (if students are not walking home). In case of inclement weather, Mileage Club will be inside the gym.

Jump rope Club will meet on Tuesday mornings at 7:25 am – 7:55. Students may also compete in the district jump rope tournament to be determined at a later date.

Speed Stacking Club (Cup stacking) will meet on Wednesday Mornings at 7:25 also with the district tournament to be determined. Speed Stack cups will be provided.

Gym Rats will meet on Friday mornings in the gym. Students are allowed to practice free throw shots, cup stacking, or jump roping at this time.

Students are allowed to join all four clubs if they wish. Please check the correct boxes below to give your permission for your child to participate. If you have any questions, please feel free to contact _____

I give my permission for _____
Student's Name

Grade: _____ Classroom Teacher: _____

To participate in the following clubs at _____ checked below. I understand that all school rules will apply to all athletic clubs.

_____ **Jump Rope Club** (Tuesday Mornings @ 7:205 am) Start Sept. 3

_____ **Speed Stacking Club** (Wed. Mornings @ 7:25 am) Start Sept. 4.

_____ **Mileage Club** (Mon. & Thurs. Mornings @ 7:25 am) Start Sept. 5
Tuesday after school (3:15 – 3:45 pm). Start Sept 3

_____ **Gym Rats** will meet on Friday Mornings @ 7:25 am Starts Sept 13

_____ Parent Signature _____ Date

Figure 9. A sample permission slip describing the physical activity clubs, including the days, dates, and times, offered at an elementary school.

School Employee Wellness and Involvement

Fifteen out of the 17 participants (88.0%) offered physical activity programs that involved school staff members. Physical activity programs that targeted and involved school faculty and staff not only offered opportunities for adults in school and community settings to benefit from physical activity participation, but also modeled and encouraged healthy, active lifestyles for the students (CDC, 1997; NASPE, 2008; Wechsler et al., 2000). Huberty et al. (2012) found school staff felt verbal encouragement and physical activity participation (role modeling) with students were effective ways to increase student physical activity in school settings. Similar to previous guidelines and research, physical activity opportunities for faculty and staff were offered in three ways by these teachers: (a) participation in physical activity opportunities with the children and adolescents, (b) participation as a volunteer or assistant to provide the physical activity opportunities, and (c) participation in physical activity opportunities offered exclusively for school faculty and staff.

First, faculty and staff were invited to participate in the physical activity opportunities they provided within their schools and communities. This not only provided physical activity, but it also allowed for opportunities to be role models for healthy, active lifestyles and interact with students outside of the traditional classroom setting. Paige implemented a running program that was open to all students, faculty and staff, families, and community members. She encouraged physical activity participation by not only rewarding each class in her school for their accumulated number of running laps, but also for the highest number of participants in their class. This encouraged students to recruit their teachers, friends, and family members to participate in the program at their

own desired intensity level. She stated, “We have teachers that go out and run with their kids, so they get credit for their class.”

Second, school employees were invited or asked to volunteer and assist in providing physical activity opportunities. Faculty and staff were involved in special events, such as field days, and collaborated with others to integrate physical education and academic units during the school day. When organizing a field day, Fred explained, “I give the teachers a packet; these are the activities and we spend a teacher day, one of our Fridays, going over activities for field day because the teachers rotate with their class every 20 minutes and they have to run that station. They have to know what’s going on.”

Last, in order to accommodate the needs of the entire school and community population, physical activity was provided specifically for school faculty and staff.

Next year we are going to have a walking club just for staff because I have some staff members who don’t want to walk with the students or the parents before school or after school. We are going to turn it into climbing all the different mountains and we will have our own staff wellness, our own staff walking club.
(Mary)

In conclusion, physical educators were implementing a variety of physical activity opportunities for several populations within their school and community settings. Their physical activity programs were similar to the five components described in the CSPAP model. Data analysis resulted in three major themes reflecting these physical educators’ perspectives of and factors related to the implementation of CSPAPs and their roles as physical activity leaders. Even though physical activity programs appeared to mirror the CSPAP model, physical educators were not intentionally utilizing the CSPAP model. They were inadvertently implementing the CSPAP model and expressed inquisitiveness related to the actual model itself. They described their physical activity philosophy,

several motives for CSPAP implementation, and factors that influenced CSPAP implementation, which both facilitated and challenged the process.

Theme 1: Comprehensive School Physical Activity Programs “Have Not Crossed My Radar”

Although physical educators were implementing physical activity programs that mirrored the components outlined in the specific CSPAP model, there was little formal knowledge of the CSPAP model itself and the definition of a physical activity leader. Despite this limited knowledge, participants were willing and eager to learn more. Last, there were mixed perspectives regarding who should fill this leadership role in school and community settings.

Knowledge of the Comprehensive School Physical Activity Program Model

Despite the implementation of multiple CSPAP components, teachers had little knowledge of the institutionalized construct. Teachers were unsure if they had heard of the CSPAP model. If they had heard of it, they were unsure of what it was or what it meant. The coach indicated, “I have not [heard of CSPAP]” and Bobby explained, “It sounds very specific, and it has not crossed my radar.” Those participants who had heard of it but were unsure of what it meant and how to interpret the model were unable to connect the formalized CSPAP model with the physical activity opportunities they offered in their school and community settings. Sally stated, “I’ve heard of it, but I’m not that familiar of it” and Kyle said, “I’ve heard of it; what it all means, not necessarily.” The participants had no training specific to CSPAPs or how to implement physical activity opportunities using the CSPAP model, however, participants’ experienced

professional development and trainings related to physical activity in general. Lori described the physical activity professional development she experienced with her colleagues when she stated,

A fourth grade teacher, a first grade teacher and I went to another elementary school and were trained on what that school does to do movement in the classroom, plus we also had a district training that those two ladies went to the previous year . . . it was all about teaching movement in the classroom and why that is good for your brain and why that is good for kids, but it was for everyone, not just the people who already know that. (Lori)

Stacy also explained, “I’m taking a seminar in a couple of weeks to learn how to train others on how to implement brain breaks.” The lack of knowledge specific to CSPAPs indicated the professional development and trainings physical educators were experiencing were not including the formalized CSPAP model as a way to enhance physical activity in school settings.

Learning how to implement programs related to physical activity occurred through university courses and schooling, such as student teaching experiences, or continuing their education in graduate school. Graduate and undergraduate coursework appeared the most prevalent source of learning how to implement physical activity in schools and communities. John said he learned, “In my Master’s [program]” and Stacy’s response was similar when she said, “Grad school.” Physical education teacher education undergraduate and graduate programs may not have been teaching the CSPAP model, but these programs had the potential to reach teachers in the field if they began including CSPAPs as a part of their PETE curriculums.

Inquisitiveness Regarding the Comprehensive School Physical Activity Program Model

Multiple CSPAP components were implemented, and even though physical educators did not realize they were doing so, they were willing and desired to learn more about CSPAPs. The ways in which this learning might have taken place included independent and informal learning such as: (a) looking up the information online or from electronic sources and (b) learning from personal connections and other professionals in the field. There was a very optimistic perception about the positive growth of physical activity programs and a willingness to accept information from others, either electronically or in person, to help guide physical activity promotion efforts. Kelsey said, “If they had online documents, reading and stuff like that, I would read about it,” and Lori and Kelly would, “google it.” In order to learn more, Carl would turn to his state physical education coordinator, “I get them [documents of information] from him all the time . . . and then they’ll, so there’s a lot of information that comes out about professional development.” Last, Craig wanted to observe the implementation and effectiveness of physical activity programs in a school setting, “The best way is to see it [physical activity programs] modeled and to see samples of it done, and how it is positively affecting growth in schools.”

Fulfilling the Role of Physical Activity Leader

A “Physical Activity Leader” (PAL) or “Physical Activity Director” (DPA) was one who coordinated, organized, and/or implemented physical activity opportunities within one or more CSPAP components in school and community settings (Carson,

2012). Although unfamiliarity with physical activity leaders and directors of physical activity existed, there was interest in learning more about this role. Mary stated, “No, I have not [heard of a physical activity leader]. When I saw that, because I was looking at your list and stuff, I looked at those and I went, I don’t know what that is. . . . I’ve never heard of that.” Bobby responded, “I would say yeah, because I don’t know what it is and if that’s going to be something that’s coming up a lot, I better know it.”

There was a mixed response to the notion of the physical education teacher serving as the physical activity leader. Similar to recent research indicating physical educators felt “offering additional opportunities for children to be physically active was an important part of their ‘normal responsibilities’” (Centeio, Erwin, & Castelli, 2014, p. 498), the perspectives of some participants indicated they already fulfilled the role of physical activity leader within their schools and communities because it was a part of their job as the physical educator. “It sounds in some ways like what I do as far as encouraging kids to get out, and trying to get people in their classroom to be, to have more movement and activities” (Kyle) and “I see myself as that director because I’m trying to do all those things” (Kelsey). When asked if he felt it was his job to provide opportunities [to be physically active] for students after school, Bobby responded, “Mmhmm . . . I don’t see it as separate.” Although it was part of the job to be involved in providing physical activity opportunities beyond physical education, it would have been difficult to do it individually, and collaboration with others in schools and communities to offer physical activity programs was an important component. Stacy explained,

Classroom teachers, they’re busy, they’ve got lots to do and the last thing they have time for is to read up on brain and movement and so that’s part of, I feel my responsibility is to say, hey this is how we can help our kids excel even more, because I’m the PE teacher, but I want the kids to succeed too in any way that I

can help them. It is my responsibility to communicate that information to where it needs to go . . . and administrate them, I wouldn't say is completely my responsibility. I think that it's important for me to help provide the information and to find other resources to help run the programs. If I ran and administered every single program that was going through my brain, I would be nuts.

On the other hand, some participants explained that serving as a physical activity leader was not the responsibility of the physical education teacher and should and/or could be fulfilled by an administrator or anyone interested in promoting physical activity in a school and community setting. John stated, "Me, myself, absolutely not, absolutely not."

Kelsey explained,

I would imagine it's someone in a bigger school where you had more than one PE teacher or something like that. I could see them being like the department chair type of stuff, where they kind of oversee all the other teachers and how to benefit and stuff like that.

Last, Sally stated, "Well I think it could be even just a parent too, a physical activity leader, I think just anybody who's interested in physical activity and sharing that with people" and Lori agreed, "It doesn't necessarily have to be the physical education teacher, they [the physical education teacher] could be a resource that's for sure."

Theme 2: Physical Educators "Focus on Teaching Kids Lifelong Skills"

Physical activity philosophy laid the foundation for specific CSPAP implementation motives. Due to the nature of physical activity embedded within physical education, the physical educator should be the expert on physical activity in a school setting (Graham et al., 2013), yet the personal perspectives of physical educators differed and physical activity expertise was not a significant motive for implementing CSPAPs.

Physical Activity Philosophy

As physical educators gained experience teaching and their physical education and physical activity philosophies evolved, it was important they considered the factors that influence physical activity participation. These factors, such as confidence of individual ability to participate in exercise, individual physical or sport competence perceptions, positive attitudes towards physical education, and enjoying physical activity, positively influenced adolescent physical activity participation (CDC, 1997; Rink et al., 2010; Siedentop, 2009). For these physical educators, physical education and physical activity philosophy laid the foundation for the physical educators' motives for implementing CSPAPs. For these physical educators, two common physical activity philosophies surfaced: (a) the importance of providing physical activity opportunities to teach others how to live healthy, active lifestyles and (b) teaching the whole child, overall wellness, and incorporating important life skills, such as personal and social responsibility, communication, and character into their physical activity opportunities.

The first of two common philosophies conveyed by the teachers was that it was extremely important to provide physical activity opportunities to teach others how to live healthy, active lifestyles. John said his programs, “really focus on teaching kids lifelong skills, both in physical, in character, and their health; so skills that they are going to use for a lifetime.” Teaching healthy, active lifestyles included: teaching a variety of physical activities, teaching physical education and physical activity content in a variety of ways, such a movement based curriculum and a sport based curriculum, and that providing a maximum amount of time for movement was essential. Mary described her philosophy,

I try and let the kids know that there are other things out there, I mean cup stacking, we've done cup stacking because I have some kids that are not very athletic, so I'll introduce cup stacking. I have a rock wall, so we talk, we do that; we talked about the rock climbing gym they have rock walls at and places that you can go and do that. I try hiking, we go orienteering and I do an orienteering unit and we go outside of our playground. It just gives them a broad range of things that they like to do because I know there are some kids out there that are not very athletic at basketball, soccer, or football. I mean that's everything, volleyball; I mean high school kids, those are the sports and that's what you see on tv and sometimes that's not all the kids. You have to find other ways to get them to be outdoors and keep moving, and not sit at home watching tv or playing on the computer.

The second common philosophy conveyed by the teachers was the importance of teaching the whole child, overall wellness, and incorporating important life skills, such as personal and social responsibility, communication, and character into physical activity opportunities. The teachers shared how the goal of their instruction was most often for students to learn acceptance of others and personal and social responsibility. Bobby stated,

Oh yeah, [it is] huge. I have a gigantic poster on the wall that's out there, why they're in PE is to learn sportsmanship and practice PE skills for a lifetime of physical fitness. It is social as well.

The teachers also viewed enjoyment as a key component to physical activity participation for themselves, students, and school staff. Fred stated simply that, "If you find things that they like doing, that are fun, they are more apt to keep doing them." The physical educators valued and believed school staff and student buy-in to the positive affective benefits of physical activity to be an important component to effective physical activity programs. The physical educators discovered that, if they could expose the school staff and students to just a little bit of physical activity, the school staff and students may begin to experience and realize the positive benefits physical activity has to offer, leading to buy-in to the physical activity programs, and ultimately incorporating physical activity

into the school day more often. Once the classroom teachers and other school staff were able to experience the positive effects of physical activity for themselves and their students in the classroom, the physical educators encouraged and supported the classroom teachers, school staff, and students to incorporate physical activity into their daily routines, as well as promote and model a physically active lifestyle. Sally organized a whole school physical activity program at her school and she explained,

I think because people are physical educators, it [the perception of classroom teachers] is kind of like, “oh this is your baby, you do it.” That’s why I would like to do it as a whole school activity; it’s not just my thing because it is helping everybody and I don’t want them [faculty and staff] to feel forced to do it and be like, “oh god we have to deal with this and Mrs. Sally.” I want them to be like, “oh this is something exciting and something fun”; so that’s my hope.

Overall, these physical educators felt providing opportunities for physical activity also provided opportunities to teach students and staff the importance of building character and being responsible and respectful people throughout life in general. Fred stated, “What I try to keep in my PE program is we can be the best athletes in the world, but we need to be good people first.”

Motives: Its More than Just Physical Activity

Even though physical educators inadvertently implemented CSPAPs, three subthemes represented specific motives for their behaviors: more physical activity was needed; enhancing the affective domain through physical activity; and it made me feel better.

More physical activity is needed. First and foremost, the physical educators strongly expressed their belief that more physical activity was needed. They felt the numerous CSPAP movement-related experiences were offered because students, faculty,

staff, families, and community members may not have had the opportunity to participate in those physical activities anywhere else. For example, Fred stated, “Sitting and reading and taking tests all day, that is going to kill us. We have fun and there’s lots of movement; I want to get those kids moving as fast as I can and as much as I can” and The Coach explained, “We’re so transient that a lot of the families live in apartment buildings, so they [students] don’t really have a yard and things like that. I just want to be able to give the kids an opportunity to be active after school.” As a result, it seemed CSPAPs were meeting the needs of students, faculty, staff, and community members by providing more time for movement and physical activity in general.

Second, the physical educators felt CSPAPs provided unique opportunities and exposed participants to information and experiences they may not have received elsewhere.

When we do square dancing, we contact professional callers to come in for square dancing, and they’ll come in and give the kids that experience; or the partnerships with the golf association, the Nuggets [basketball team], and those things . . . we say, “what can we do that is unique and that the kids will have a positive memory with.” (Craig)

Many physical activity opportunities were offered as an extension of the physical education program, providing occasions for advanced instruction and development. Kyle offered intramural physical activity opportunities that included a lot of game play. “It’s just because in PE we get to do the skills, but we don’t get to do the game very much and I wanted to give them [the students] a chance to use those skills” (Kyle). In addition, Bobby explained,

The reasons why . . . one is advanced skill development for kids who want to take it higher. PE is for everybody, and not everyone likes PE; most do because it is fun and I do a lot of games, but some want it to go more competitive and more aggressive and make it more sport than PE, so I offer that to them.

CSPAPs provided opportunities to teach all students physical activities beyond what could be taught in physical education classes, promoting physical activity participation outside of school and teaching lifelong physical activity habits.

I just want kids active as much as possible and if I could do a club every day after school I would just because it's beneficial for the kids, and I feel like if you teach them at a young age how to be active, they are going to be lifelong learners of being physically fit and making good choices. (Kelsey)

The physical educators consistently expressed the belief that physical activity was for everyone, including parents, community members, faculty, and staff, and CSPAPs were utilized to reach out to populations beyond children and adolescents. Sally explained,

It was neat to see that they [teachers] were getting excited about it [teacher pedometer program] and then their kids would ask them, "how many steps have you gotten today?" It was a neat thing to reach out to the staff also and get them moving, and that's where our whole school movement time that we are going to do came from. I presented it [the whole school movement program] to the staff as an intervention, not just for kids but also for staff, to get us all off on the right start for the day, ready to go, and make you feel good; leave those other stresses behind. So I think it's just one of those things that I'm trying to approach it as a whole staff instead, and have the teachers involved in it because the kids are only gonna be as enthusiastic about it as their teachers are, and their teachers get them moving. I think it'll make their day better, so I'm just trying to do a whole community event.

The physical educators also pointed out that CSPAPs provided inexpensive physical activity opportunities that allowed participation by those who may not have been able to afford fee-based physical activity opportunities, such as joining a YMCA to have access to physical activity facilities or participating on a community club sports team, eliminating money as a barrier to physical activity participation.

I think kids need to be active outside of physical education and our population doesn't get that opportunity; their parents don't have the money, they are not home, or they don't, or can't, provide those things for their children. (Lori)

In addition, Sally stated, “I just want kids to be involved, and not be involved because they can’t afford it.” Last, there have been increases in physical inactivity, and therefore, it was important to promote and provide opportunities for more movement. Lori simply stated, “Because I think they need it and I see our population becoming heavier and heavier, and less active.” The Coach also explained,

I just do it, like I said for me it is, I remember when I was growing up, we were always active, and whether we were riding bikes, playing made up games, or whatever, we were always active. Kids today don’t seem to have that; it is just such a changed generation with video games and them having their own phones.

Enhancing the affective domain through physical activity. Building and enhancing relationships, life skills, and emotional components through physical activity participation was a reason why participants offered physical activity opportunities. First, physical activity was fun and enjoyable for all participants, children and adults. “The kids come play just to have fun” (Mary) and “We will do the dancing with the staff; that’s fun for them and good movement for them” (Fred). Second, CSPAPs provided an opportunity to teach and enhance character, address social and personal responsibility, teach and enhance behaviors and attitude, build self-esteem, and provide leadership roles for children and adolescents. Sally affirmed,

The really neat thing I saw was the bigger [older] kids helping out the littler [younger] kids; kind of encouraging them. That’s just one of those things where it’s like, oh, that’s really cool to see; they take on that leadership role and look out for the littler ones. It’s a neat community, not only good physical activity, but it’s a great community event. I like it, I like that and I always tell the kids, the number one thing is to be nice and be kind and respectful and responsible; so it’s neat to see that kind of play out when I’m not out there directing it.

Third, they allowed adults to build positive relationships with children and adolescents, as well as demonstrated they cared and were investing time and energy into what was

best for children and adolescents. Sally explained why she offered physical activity opportunities by stating,

[Offering physical activity opportunities was] for the kids; I think the best, the main reason is to do it for the kids; just because I want to enrich their lives and make them better, and give them different experiences.

In addition, building relationships with students was very important, and physical education was one way to develop and build those meaningful relationships; ultimately making an impact on children and adolescents. Kelly stated,

I think there's always the piece of building relationships to sum it up for me. I think relationships is what keeps me going and it drives me to do better; being that person that kids can come to and I mean without that, I mean PE is my vehicle, but I'm interacting with kids. I've always enjoyed high school students and I think the thing I like about high school students too, which is different than elementary or middle, is they're old enough; I mean I don't believe in cussing or being degrading, but you can also sit them down in a docile, progressive way; I mean lead them along on the string and teach them about their fitness and their health, and why it is important. I think with dance, or whatever it is, you have a lot of avenues of how to do that, and the more you move along, the more you know how to pull each kids' string and get them where you need them to go.

Fourth, the opportunities gave children and adolescents something to do in a safe environment that kept them out of trouble. "The reason, I'll be honest with you, the reason these clubs came about was to provide a safe place for the kids, to get them; fight the streets; they're not going to become victims of the street" (Fred). Fifth, the potential to gain social benefits from participating in physical activity with others inspired teachers to offer these opportunities in their schools and communities. Carl offered a morning walking and running program one day per week at his elementary and middle school and he explained,

It is social for them. A lot of the kids get to be kind of off the school grounds a little bit during the morning, and they're walking and talking with their girlfriend, or they are running, or they are pushing each other, because there are some of these kids that, we do our fitness test three times a year, and the mile is a part of

that, and they get really pumped up about it; kind of pushing themselves. Some of them will use that time to jog with somebody that is outside of their crew.

Last, offering physical activity opportunities had the potential for children and adolescents of various age and grade levels to interact with each other. Sally offered after school physical activity programs that were open to all grade levels in her school, and she described how the students benefitted from this, “It is also neat to see the fifth graders help the little kindergarteners, and then they [the younger students] also see what is possible with practice. So it is one of those hard things, but where I want them all together” (Sally).

It makes me feel better. Last, physical activity opportunities were offered for intrinsic reasons, or “belonging to the essential nature of a thing” (Intrinsic, 2015); in this case, the “thing” referred to the physical educators as individuals. Recent research involving physical educators has explained this phenomenon as “dedicated to children’s health” and “passionate about making a difference in children’s lives” (Centeio, Erwin, et al., 2014, p. 504). Similarly, CSPAPs were offered simply for a love of physical activity, enjoyment, and satisfaction; in the end, all of the time and energy spent was worth it. These reasons were described by physical educators as, “Well, I like to do it” (Lori), “I actually really enjoy doing events” (Stacy), “I love it” (Charlie), “I want to be here with the kids, teaching them” (Carl), “We coached them because that’s what we loved to do” (The Coach), and “Like I say, in the end, I think it’s all worth it” (Kelly). Seeing student learning, growth, and success were some of the reasons why CSPAPs were worth the time and energy.

I think the best thing is just seeing the kids; I think that would be my compensation; seeing what the kids can do, and their achievement. Like with our running club, they’re like, “oh my gosh, I ran two miles today.” Then, each day

they would see their total amount and, “oh my gosh, I’ve almost gotten a half marathon” and different things; and just, that’s enough. (Sally)

In addition, Mary stated, “It was really cool, just seeing the kids and their smiling faces just light up, ‘oh look I can do this’. I enjoy that part of it.” Passion for physical activity, as well as valuing and believing in the benefits of physical activity were also motives for implementing CSPAPs. Mary said, “I mean it’s my passion. I love doing this job. I love working with kids.” Sally explained in more detail,

I don’t see it as my job, but I see it as my passion; that I like movement and I want others to enjoy, not that I want to force them to enjoy movement, but I want to have them get the benefits that I always see from movement, and just like when the teacher loves to read and she wants her kids to become enthusiastic about reading. I’m just trying to pass it [a love for movement] on; get that enthusiasm going for others.

Desire to be a positive role model and make a difference and an impact on the lives of students, colleagues, and communities was another intrinsic motive. The Coach described his perspective,

I feel very fortunate; to feel like I can affect them that way; even just talking on a general life lesson here or there. They were asking me about dodgeball one time and I was like, “I don’t make those decisions, those come from other people, but if you want to be able to change those decisions, you need to be the ones that are in charge, and run for office.” I just kind of give them little lessons like that; that they don’t even think about sometimes, and it really seems to make a difference if they see it from a minority and someone who is in a position that they listen to. So it has been really, I don’t want to say serious, but it has been really important for me to be able to tell, to show that to the kids; having that position of authority and then the role modelish type position.

Kelly provided a unique and intense dance program at the secondary level and described her motives for the program by stating,

The students love it and again I’ve had students go on. That was another piece, I think when I started seeing that it was making an impact, a big impact in a lot of students’ lives, and they were wanting to continue it outside of high school. I met a woman who works over at the dance studio and she started an over 18 dance group, I had some students go over there; two students in particular, and then

some other students throughout the years. One female student has gone on and opened up her own studio downtown. So again, watching those kids take it on to the next level, and coming back and getting that feedback back was huge, and it was like it really mattered to them.

Interestingly, it was important to note that CSPAPs were not offered for the money. “Not even remotely worth it if you are going on a monetary basis. But that’s not why we are doing it” (Bobby). The overall perception indicated teachers were there for the students and CSPAP implementation that provided students with the opportunity to benefit from physical activity participation took priority over teacher wants and needs.

We’re not in it for the money; that’s not why you’re in teaching. Teaching is a calling, it’s not an occupation. It’s a calling and you find out real quick among teachers who are there for the kids. I go back to my principles; you put and you invest the time and the money into them [children and adolescents] now, or you pay for it dearly later. Unless we want to build a community that is better in some way, people better start investing their time in the kids; we can take care of problems, it’s elementary. It is harder as they get older, a lot harder. (Fred)

Monetary compensation varied depending upon the individual district and school, as well as the physical activity program offered. A variety of physical activity opportunities were offered even though there was no compensation for time and energy monetarily. Some districts and schools compensated monetarily for physical activity programs, but it was a very little amount of money. In addition, monetary compensation depended upon the physical activity program offered. Craig explained, “For the 5th gear kids [an integrated health and physical activity program], we are and it is an 800 dollars a year stipend...but that is the only one [that he is compensated for] . . . there’s no compensation or anything in my direction [for field day].” Overall, time and energy organizing and implementing CSPAPs occurred because of enjoyment, passion for physical activity, value for the benefits gained from physical activity participation, and value for the impact it had on children and adolescents. While participants described many reasons for implementing

physical activity in their school and community settings, the notion that participants did so because of their physical activity knowledge and expertise was lacking. In addition, physical educators' perceptions that they were the physical activity expert within their individual settings varied.

Physical Activity Expert in Schools and Communities

Although the physical educator was the most likely candidate to be the physical activity expert in a school setting (Graham et al., 2013), perceptions on this idea varied. First, negative perceptions towards physical activity expertise in school and community settings were indicated. Sally elaborated,

Oh I'm not an expert; I don't think at all. I think I'm just somebody who likes physical activity and movement. I tell the kids all the time, I'm always learning; I'm not ever where I want to be and I'm always striving to be better . . . it's one of those things where you're never an expert in your field and you're always continuing to be better.

Second, perceptions suggested that there was more than one physical activity expert in the school and community, and the physical educator was one of a group of individuals who encompassed expertise in the area of physical activity. Kelsey explained,

[I'm not an expert] in everything because I do think that there is a teacher here that runs a jump rope club and she does it on Fridays. I don't help her out with it...she ran a jump rope club and she actually knows way more about jump rope than I ever could. I utilize that and I said, "Can you show me how to do that?" So I don't really call myself an expert in all activities. . . I would definitely call myself almost an expert in soccer because I coach it and I play it, and I have coaching licenses for it. I have an idea and an understanding for all sports because I was that kid that did all those sports growing up. I think to be called an expert is a really hard thing, but I'm working on it . . . you are never done learning; I am always learning.

Last, perceptions indicated positive positions towards physical activity expertise in schools and communities because of a desire for lifelong learning related to physical

activity, possessing vast knowledge in the field, having extensive training in the area of physical activity and areas related to physical activity, being utilized as a resource by other teachers for knowledge and ideas related to physical activity, and having a background in physical activity as a part of the profession. In Mary's environment, other teachers went to her for physical activity ideas and they collaborated in providing physical activity opportunities for students, staff, families, and community members. Mary stated, "I would say yeah because they [other teachers] do come to me for, [they say] 'I need help with this or how do I do this?' . . . 'Well, let me check' [I say]." Bobby believed, "Well, it's my background . . . it's my job, it's my profession . . . yeah; within the school, yeah, I have to be [the physical activity expert]." In conclusion, there were mixed reactions related to the physical educator as the "physical activity expert" within school and community settings. Teachers' perspectives varied depending upon the individual, their beliefs and values about physical activity, the environment in which they worked, and each physical educator's interpretation of what it meant to be an "expert" in general.

Theme 3: Facilitators and Challenges: Beyond Ourselves

Many factors facilitated and challenged participants throughout their experiences offering CSPAPs. Four major facilitating elements included support, collaboration, creating awareness and advocating for programs, and providing resources and trainings for others. Four major challenges to implementing, or attempting to implement, physical activity opportunities included funding, additional academic requirements, facilities and equipment, and other obligations.

Facilitating Elements

Recent research indicated that initial multilevel support and receptive classroom teachers to activity integration were facilitating factors of CSPAP implementation (Carson, Pulling, Wolak, Castelli, & Beighle, 2014). Similarly, four major elements facilitated physical educators when implementing physical activity opportunities: (a) support, (b) collaboration, (c) creating awareness and advocating for programs, and (d) providing resources and trainings for others.

Support. Support was experienced in several ways. First, funding from internal and external (grants, fundraising, or donations) sources was a huge support for physical activity programs. Funding supported staff, resources, professional development and training, and equipment for physical activity programs and opportunities in schools and communities. Stacy described how funding supported her attempts to implement a brain breaks program,

I wrote a grant through healthy schools and we were going to implement brain breaks, and that was one of our school health improvement plans, was to start a brain breaks program. So we were going to do a professional development seminar where we actually showed the teachers how to run the brain breaks and they knew exactly what it looked like and how to administer it.

Grants have assisted in increasing the availability of equipment, allowing for opportunities and exposure to a variety of physical activities that may not have been available without that equipment. Mary described how grant funding assisted her in providing additional physical activity opportunities for her school and community,

With this grant coming in we have designed a disc golf course that is going to be right behind our playground, so there will be nine holes back there . . . none of these programs would have started if it wasn't for the grants, the fuel up to play 60 grant. I would have never gotten the walking club started if it wasn't for that because I have to try and save my five hundred dollar [physical education budget] for just in case I blow a basketball and now I have to buy them.

Lori had the same strategy, “I write a lot of grants; my equipment room is very full.”

Support from personnel, including administration, faculty, staff, parents/families, and community members was also a huge facilitator in implementing CSPAPs. In accordance with existing literature stating support from administration was an essential factor in the successful implementation of physical activity opportunities (Centeio, Erwin, et al., 2014), administrators in these school settings were supportive of the physical activity opportunities offered. Administrators did so by believing in the benefits of physical activity participation, allowing programs to happen, and involving themselves in physical activity opportunities. “They [administration] have never said no to anything that I’ve wanted to do that I can think of, so I mean they are supportive. They want the kids active, they want the kids to be involved in any way they can” (Kyle). Lori described her administration,

He [the principal] is part of that physical activity leader too because he is allowing and he is helping. He goes out at recess every day and he stays out there most of the time. He runs games with kids, so he has been really helpful so that I don’t have to do all that.

School faculty and staff supported physical activity programs by participating in the physical activity programs and providing physical activity opportunities in their classrooms.

I’m very lucky because once I brought in mileage [running] club, every teacher here has adopted this and they are on board 100.0%. They get those kids out and on days like this, you’ll see six or seven classes out at a time all running mileage, and it’s awesome. (Fred)

Once physical activity programs were initially implemented, classroom teachers began to recognize the benefits of providing physical activity for their students during the school day. “I think teachers have realized that it [physical activity] is needed and yes, they are

having fun, but the more often they do it, the more that they can quickly get back down to work” (Kelsey).

The last form of support for physical activity opportunities came from parents, families, and community members. Parents and families in the communities showed support by providing opportunities for their children to participate in physical activity opportunities in the community, assisting physical educators with physical activity programs, and through parent/teacher organizations. Charlie explained,

We get a lot of community support . . . I look for community resources. There are people out there who are looking for something to support and I have grandparents and social work organizations who, when I say I have a need, they are like, “what can we do?” So look at the community supports and recognize that, let’s look at the schools as the foundation of our society; it all starts here.

In conclusion, support in the form of funding and school and community personnel facilitated the implementation of CSPAPs.

Collaboration. Collaboration occurred with other professionals in the field, school staff and faculty, administrators, families and community members, and students in order to provide a wide variety of physical activity opportunities. Collaborating with other professionals in the field was important for a number of reasons: shared information about physical activity programs that had been effective and successful, shared resources and physical activity materials, provided guidance and assistance with difficulties related to physical activity programming, and provided positive and educational interscholastic athletic experiences. Sally explained,

Another elementary school implemented their [physical activity program] last Fall and so I’ve gotten a lot of advice from him on what are things are working. One PE teacher started it, so she’s helped out another PE teacher, and now he’s helping me out. And so it was always just helping each other out in different activities. I think that’s where we all said ok, we need to bring our resources

together and share our resources so that we can help one another instead of always recreating the wheel.

In order to encourage and implement physical activity at various times before, during, and after school, collaboration with school faculty and staff was necessary. Collaboration within a school setting occurred in many different ways including: classroom teachers led physical activity programs during or after school; classroom teachers integrated and led physical activity opportunities in their classroom lessons; the integration of other academic subjects into physical education; aides and classroom teachers supervised recess physical activity opportunities; classroom teachers assisted during field days and track days; classroom teachers assisted and participated in before- and after-school physical activity clubs and intramurals led by the physical educator; and the sharing of physical activity information and resources.

We do collaborate with them [classroom teachers]; here and there we talk about PE or what they are doing in their classroom. If we can tie it to what's going on, we can do, let's say they are learning about a different country, we can tie in PE from that country. (Brooke)

Classroom teachers played an important role in providing physical activity opportunities.

"On track day I recruit the classroom teachers to run events. I could not do it without them. I'd be dead meat" (Bobby). Administrators at the district and school levels helped physical educators enhance their physical education and physical activity programs by providing guidance and resources. "I think the collaboration that we've had with the administration within our building has helped us get the yoga program" (Craig).

Collaboration also occurred to write grants that allowed districts and schools to acquire funding that started and supported physical activity programs.

I worked hard; I worked closely with the grant lady to get it [the physical activity program information] implemented and she wrote it [the grant] basically. She

would give me what she wrote and say, “hey, what do you think of this?” And I was like, no, you might not want to do this; so we changed it and were able to get it submitted. (Mary)

Family and community members played a role in many physical activity opportunities that occurred in school settings. This was especially important because parental involvement, parental facilitation, and parent role modeling had the potential to influence children’s physical activity participation (Welk, 1999). Parents and family members supported children and adolescents by attending physical activity events, watching, and cheering on the participants. They were involved with the school in various ways, such as serving on committees or volunteering to assist with the implementation of clubs, field days, and track days. “We have a couple of parents that sit on the health team, so they help me get volunteers and things to help when I need it, like for field day or for activities we provide like the health night” (Lori). Collaboration with community organizations and local businesses was a two-way street; physical educators utilized the community as resources to provide physical activity opportunities and learning experiences for the students and in return, physical educators would inform students and families of community resources.

Other companies, like we had a golf guy come by and I had a karate guy come by . . . they would come from the rec center and teach gymnastics and cheerleading; lacrosse with the Colorado Mammoth; so the Mammoth would come out and they would give us [lacrosse] sticks. I look for those organizations that are very willing to come out and work with kids after school too. (John)

Charlie stated, “We have community resources; we have the bike co-op here in town. I said to a little girl, ‘hey, go down to the bike co-op if you think you might want to get a bike.’ She did and got a beautiful bike for twenty dollars and a helmet.”

Last, collaboration occurred with students. Former and older students were recruited to assist with teaching physical activities or leading field and track day activities. “We also have groups from other organizations come in, like our local high school; former students from here who are wrestlers there now would come in and they would teach the kids wrestling” (John). Paige described how she utilized the older students in her school to assist with physical activity opportunities, as well as provided them with valuable leadership opportunities,

I had the fifth graders as the leaders of the school, like I had the cities and towns of the state; they [the fifth graders] had to research where the cities and towns of the state were and how they got their name . . . so the kids would all have their station and when a group would come to their station, and there were usually two fifth graders at each station to help, they would have a map of the state and where their town was located; so they had to locate the town on the map and tell how the town got its’ name, and then they played a game.

Overall, collaboration occurred in many ways and was a key factor in the effectiveness and success of CSPAP implementation.

Advocacy and awareness. Creating awareness and advocating for CSPAPs was an important facilitator and ultimately aided in the implementation and support of physical activity opportunities in school and community settings. A number of strategies were used to promote CSPAPs, inform others about physical activity opportunities in the community, and provide information about the numerous benefits of physical activity. First, information was constantly communicated and conveyed to students, teachers, administrators, families, and community members through flyers, newsletters, letters, research articles, bulletin boards, informational posters hanging on school hallway and classroom walls, newspapers, email, the internet and websites, social media such as

facebook and twitter, and school announcements. Kyle shared how he promoted his physical activity programs,

Whenever we play a game [during intramurals], I'll always report the score to the counselor because he does our announcements. He will always announce which team won and so I think that kind of encourages people to sign up... We have a newsletter that goes out once a month and I include the next thing we are going to do, or what we just did and the team that won . . . so everybody does a little article and I do a little part . . . I know that we also have a facebook page and the secretary puts the [physical activity] calendar on there. (Kyle)

Second, special events, such as physical education nights and assemblies that highlighted physical activity and physical education programs were organized. Sally described,

We do a PE night, an art, music, PE night where we did highlights of our days or highlights of our programs. It was a community thing where they [parents and community members] could come in and do things with their kids. I'm going to try to do more of that this upcoming year, so do like a kindergarten PE night and grade level PE nights where they can come and do stuff, have the kids teach moms and dads what they are doing, and show them; so just kind of getting people excited and knowledgeable. (Sally)

Third, conversations with others provided opportunities to promote CSPAPs and encourage others to incorporate physical activity into their daily lifestyles. "I encourage them [classroom teachers] in incorporating that [physical activity]" (Charlie). Paige also explained,

I make it a point, because PE has been greatly undervalued forever, that you don't just play . . . so when the teachers come to pick up the kids, I started this three years ago when I came here, I made sure I would tell the teachers, "We talked about angular momentum today."

Last, meetings with key stakeholders and school and community decision-makers were initiated and lead. Charlie explained, "I also conducted meetings with principal groups and talked to them about incorporating physical activity into this new RTI responsibility." In support of this idea, Stacy stated, "I think really advocating for what our field and our profession does, and supporting it with facts is definitely a strategy [that

helps implementing CSPAPs].” Although awareness and promotion for CSPAPs occurred in a number of ways, efforts ultimately aided in implementing CSPAPs and promoting physical activity in school and community settings.

Resources and trainings. Similar to research emphasizing the need to train school staff about physical activity (Huberty et al., 2012), the final element that facilitated the implementation of CSPAPs was active engagement in providing resources and training others to incorporate physical activity opportunities before, during, and after the school day. One way this occurred was by providing information and sources of information, such as websites, books, and research articles, to others so they could access more physical activity information and ideas. “I talked about GoNoodle.com, and they [the teachers] have that and I showed them that it was something that they can implement; it’s easy, the whole class does it, and it tracks it [physical activity] for you” (Mary). Educating and training school staff, such as classroom teachers, lunchroom aides, recess monitors, and before- and after-school program staff was a second way physical activity was promoted. Education and trainings included the importance of physical activity breaks and ideas for how to incorporate movement in the classroom, brain breaks, and physical activity into academics. “I’ve trained my playground supervisor; I have her actively engaged in PE and health forms” (Charlie). John did something similar at his school, “The physical activity monitor [would be one example]; if someone is bored, I can say, ‘hey, I have this great thing for you’ . . . it is a great resource for our recess monitors, for the people that are out there at recess who, that is their job; here are some tools for you.” Providing education and training for students occurred in a variety of ways including: (a) how to maximize play and physical activity experiences, (b)

specific physical activities and ideas to take back to the classrooms to utilize themselves or share with classroom teachers, (c) providing leadership opportunities through physical activity, and (d) providing information about physical activity outside of school and at home so they can be physically active and practice on their own.

I have been working on teaching it [physical activity] to the kids so that when it comes next Fall, they are like, “oh yeah, we know that and we can do that”; and they can teach the teachers. They like that excitement of, “oh, we are going to show our teacher what we are doing and how to do it,” so we will see how it goes. (Sally)

Last, supplying materials, equipment, and facilities helped classroom teachers and school staff offer physical activity opportunities. Mary explained,

We ended up buying some [fit sticks], because they were really expensive, and then she [another teacher] and I made the rest of them [fit sticks] for the whole entire school; so everybody, I mean including the principal, assistant principal, the nutrition people, our office staff, our health lady, and any adult that the kids are in contact with here in our building all have fit sticks.

Fit sticks (Figure 10) was one example of a resource physical educators provided school staff to promote and enhance physical activity participation during the school day. In conclusion, in accordance with and adding to the existing literature, support, collaboration, creating awareness and advocating for programs, and providing resources and trainings for others were four elements facilitating CSPAP implementation.



Figure 10. A picture of fit sticks.

Challenges

Carson et al. (2014) found CSPAP implementation inhibitors to include: “(a) multilevel resistance, (b) perceived increased workload, and (c) lack of children safety (i.e., transportation and/or facilities)” (p. A-56). Factors that made CSPAP implementation more difficult for these physical educators included: (a) funding, (b) additional academic requirements, (c) facilities and equipment, and (d) other obligations, and were slightly different than the inhibitors in the existing literature.

Funding. One of the major challenges when implementing CSPAPs was funding. Phoebe’s immediate response about challenges was, “money.” Funding challenged CSPAP implementation in several ways. First, there was a lack of funding to pay personnel for time and effort to implement physical activity programs; this included

physical education or classroom teachers offering physical activity outside of their contracted school day for clubs and intramurals, as well as coaches for interscholastic athletic programs. Not only was there a lack of funding to pay for physical activity programs before or after school, programs during the school day, such as physical education, were being reduced because of cuts in education budgets. Administrative positions, such as district physical education coordinators, and teaching positions were decreasing in time and salary. Kelsey explained how this was affecting what physical activity opportunities she offered outside of the school day,

I'm only point 8, so that means I'm done at 2:05 pm every day, and the kids don't get done until 2:30 pm. I don't do a lot of after school activities because then I am sitting around for free basically for the district, and we want to get the PE, the specials teachers, back to full time in our district; but because of budget cuts, they have dropped our hours, so I try not to stick around when I don't have to because if I stick around, then they are never going to put me back to full time.

In addition, physical educators noted that their program budgets and salaries were some of the first to be cut because physical education and physical activity were not top priorities in education and teachers in this field were not valued.

Unfortunately with budget cuts, they cut our PE director. PE is an area that has no one right now; we are our own island and we're trying to sustain and go through all these new standards and everything with nothing. . . . PE is the first to get cut, let's face it, and you and I could argue with that until the cows come home, but we are the bottom of the barrel. (Fred)

Next, funding for physical education and physical activity program needs, facilities, and equipment was lumped into one physical education budget that required all physical activity opportunity needs (such as equipment for recess or after-school physical activity clubs) to come from that one budget. The budgets were small and even decreasing, and they were not sufficient to keep up with the facility and equipment maintenance required for safe, quality physical education and physical activity programs. Fred explained,

I think with these programs if we could bring in a lot more [money], it is going to help with that [the physical activity programs], but it is all about funding; not only for the extra programs but just for the basics that we need. I get \$250 a year; that is my entire budget in PE. Now with that \$250, I have to provide all the playground equipment and use that for field day activities too.

Last, even when physical activity programs were started and initially funded by grants, eventually the program needs, such as paying for personnel and repairing or replacing equipment, were going to have to be met by some sort of funding after the grant money was depleted or the programs would not last. “Next year, after the grant money goes away, we have to find ways to keep it [the physical activity programs] sustainable” (Mary).

Additional academic requirements. The successful implementation and maintenance of a CSPAP required school leaders, administrators, and policy-makers to prioritize and formalize physical activity in plans, curriculum, and evaluation (Tjomsland, 2010). Federal legislation focused on increasing academic requirements has made CSPAP implementation more difficult. Schools have been forced to decrease the amount of time for nonacademic areas and physical activity during the school day (Rink et al., 2010; Siedentop, 2009). Huberty et al. (2012) reported, “Teachers and staff felt that because of academic pressure there was not enough time for them to allow their children to be more active” (p. 992). Parallel to this research, another challenge physical educators faced when implementing CSPAPs was the increasing academic demands and requirements in schools. Academic responsibilities for teachers were increasing without taking any of those responsibilities away, making the role of the teacher more difficult and more time consuming. Many schools did not allow time for formal health education classes and, because physical education and health education overlapped in many ways,

the physical educators also incorporated health education content and concepts into the physical education classes.

Where I struggle, I'm going to be very honest with you; I taught health two years, just straight health and it is a whole curriculum. It is a massive curriculum; so now they are saying you are going to teach health in this district, and they combine health and PE together. We are like oh and sure, you betcha, because we do teach bits and pieces; am I going to hit that whole curriculum? Not in a thousand years, and now they want me to write too. (Mary)

The pressures of scoring well on academic standardized tests were forcing administrators to require physical educators to integrate reading and writing into physical education classes. Bobby explained,

There's pressure, like I was actually told by my principal, "well, what are you doing with writing?" I'm not going to sit my kids down and we are going to write about running. Sitting on their butts doing nothing, that's where I dig my heels in...I'm not writing about doing stuff. There are many teachers who do that; they have written assignments. I see them [the students] only once every three days; I'm not wasting that small bit of valuable time writing.

In addition, these increases in standardized testing were affecting physical activity programs in other ways, such as interfering with physical activity time in physical education and limiting the use of physical activity facilities.

For a while they were wanting us to write every day in PE. For us and our limited time, yes, that is a barrier. If you ask a lot of teachers, it is not easy to get kids to do homework anymore, so to ask them to do the writing outside of class; then are you going to fail them in their physical education class because they didn't write something about this? (Phoebe)

The Coach described his experience by stating,

During the two weeks we have the standardized testing, I was told I needed to take the kids outside; even in our gym, even though it is small, they didn't want the noise because the fifth and sixth grade hallway is just that way [across the hall from the gym], so they didn't want any disturbances with noise. I was told, "hey can you take the kids outside during the two hours that they are testing?" I said, "yeah, I have no problem with that." The problem was, it was March and it was still cold a little bit and there were a couple of days it was nice, but one day it started to snow a little bit and I really had nowhere else to go.

Last, there was simply very little time during the academic school day or after school to participate in physical activity because of the academic requirements associated with being a teacher.

There is a lot of work here at this school in the sense of, we are a high performing school, a lot of expectations to perform high and score well in reading and writing and all that stuff. So it does make it a little bit challenging I think for a classroom teacher to say, “ok, well I’m not going to grade or work on my lesson plan for tomorrow and I might go and teach running,” or something like that. (John)

Overall, the additional academic requirements in school settings, for both physical educators and classroom teachers, created challenges when attempting to incorporate physical activity before, during and after the school day.

Facilities and equipment. When children and adolescents had access to indoor and outdoor facilities that could have been used for physical activity, their opportunities for participation were enhanced and they were more likely to be physically active (CDC, 2010a; Rink et al., 2010; Wechsler et al., 2000). Huberty et al. (2012) found school staff, such as classroom and physical educators, paraprofessionals, and nurses, revealed a barrier to physical activity in many schools was the availability and quality of space and equipment that could have been utilized for physical activity. Similar hindrances were encountered by these physical educators when implementing CSPAPs, and challenges related to the size, age, location, and availability of the facilities at their schools and within their community settings were experienced. Many of the spaces available for physical activity were small, old, and out of date, limiting the opportunity for physical activity, especially when physical education class sizes were large or there were many physical activity participants. Older facilities limited the potential use for technology because they may not have been updated to incorporate technology use. “The gyms are

too small; these schools were built in the baby boom years. They are old; they are outdated. The last part that is going to be revamped, redone, or rewired is going to be the gym” (Fred). The location of the buildings played a role in the types of physical activity opportunities offered. Some school gymnasiums were located separate from the rest of the building, taking time away from physical education classes for transitioning to and from the gymnasium. Other schools were located in city settings where the field space was small or unsafe to be participating in certain types of physical activities, and the space to expand the facilities was not available.

We have fifty-five minutes [for physical education], but our classes, our main building is up there, up the road. So they [the students] have to actually have extra time to walk down, and we have to let them extra time early to walk back up...we are probably in the classroom right at forty, forty-five minutes and that's it.
(Phoebe)

Last, the gymnasium was typically a “shared” space. During the school day, the gymnasium was also the lunchroom, the music concert hall, and the whole-school assembly room. “A gym is also the cafeteria, which is also the auditorium, which is also everything” (Bobby). As the lunchroom, the equipment in the gym would have to be put away so the lunch tables could be set up. As the assembly room and music concert hall, risers and chairs would have to be set up and taken down, taking away time and space for physical activity. John highlighted this concern to other teachers by stating,

How many times does the school, or we, use the gym for not PE? So last year, I brought that up; I kept track and I said it is eighteen [out of 53 physical education lessons per year]. I said, I want you guys [other teachers] to realize that that means you would be out of your classroom eighteen times; not for 45 minutes, for the day; so you have to go teach somewhere else eighteen times next year.

Before and after school, the gymnasiums were utilized by outside organizations and interscholastic athletic teams, limiting the space available for additional physical activity opportunities. Phoebe explained,

We do not have facilities to run intramurals if you have after school athletics; we don't have an open space to do anything. So really it is, it all has to do with money and space for us. . . . I wish we had the space to run intramurals because in PE we see some kids that are great athletes, but they just haven't made a team and it's sad, they still want to be competitive, so it would be nice if we had the opportunity to do that.

Along with facilities, equipment availability and storage played a role in the types of physical activities that were offered in school and community settings. In some instances, the equipment required for a specific physical activity was not available. For example, Phoebe stated, "We don't have a climbing wall, so it's kind of sad but our kids are kind of limited as far as what activities we do." Other times, there was a lack of equipment quantity available to meet the needs of the physical activity participants.

When you are running a class of seventy kids in there doing crossfit, equipment is huge, and for us, we finally got them to give us one area where maybe we could try to have some storage. I mean, we don't even have a place to store equipment. (Phoebe)

Other obligations. The final challenges were related to other obligations in the physical educators' lives, resulting in less time to implement additional physical activity opportunities. Other obligations included taking time to keep themselves healthy and balance their personal life, spending time with their families, pursuing professional development opportunities and additional educational degrees, attending school meetings, coaching, and working additional jobs.

The hindrance right now that I have is just time and those types of things that are kind of my own doing. . . . I'm pursuing my masters in educational administration. For the twelve years before this, I was a varsity coach, so the time that I had to really place into that [developing a physical activity program] when you are a

varsity coach, I mean I hate to say this but you are putting in twenty hours a week just to make the [athletic] program flourish. Right now I have a baby and I have my wife and those things. (Craig)

These obligations changed over time, creating more or less time to spend offering physical activity opportunities. Kelly explained, “I used to coach, I mean before I had kids. I would stay after school and do all that.” Lori explained how she experienced just the opposite, “Well I have to say my own children are grown, so it is easier for me, and my husband doesn’t generally get home until 5 or 6 pm.”

In conclusion, funding, additional academic requirements, facilities and equipment, and other obligations were four challenges that were encountered by physical educators when implementing CSPAPs.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Discussion

Recent research has examined the characteristics of physical educators and factors that influenced CSPAP implementation throughout and after formalized CSPAP training (Centeio, Erwin, et al., 2014); however, little existing research has examined the perspectives of physical educators who have not experienced this formalized training with regard to the implementation of CSPAPs in their school and community settings. The purpose of this study was to examine physical educators' perspectives of and factors related to the implementation of comprehensive school physical activity programs and their roles as physical activity directors. Guided by social cognitive theory, the following research questions were utilized to examine the personal, cognitive, and environmental factors that influenced CSPAP implementation behavior:

- Q1 What knowledge do physical educators have about comprehensive school physical activity programs?
- Q2 What are the perspectives of physical educators regarding the implementation of comprehensive school physical activity programs?
- Q3 What factors influence, guide, and hinder the implementation of comprehensive school physical activity programs by physical educators in K-12 schools?

Physical educators identified three major themes reflecting their perspectives of and factors related to the implementation of CSPAPs and their roles as physical activity directors. First, all CSPAP components were unknowingly implemented in various ways

that met the unique needs of schools and communities. Although there was little knowledge of the institutionalized CSPAP construct, there was curiosity to learn more about this specific model and the role of the physical activity leader. In addition, there were varying opinions regarding who should fill the role of physical activity leader. Second, physical educators' physical activity philosophies guided motives for implementing CSPAPs. The three major motives for implementing CSPAPs included a focus on teaching lifelong skills; more specifically: (a) the need for more physical activity opportunities; (b) enhancing the affective domain through physical activity; and (c) experiencing intrinsic rewards, such as enjoyment, a love for physical activity and working with children, and seeing growth and learning in children and adolescents, when providing physical activity opportunities. Third, four environmental factors facilitated and four environmental factors challenged CSPAP implementation. The facilitating elements included support, collaboration, creating awareness and advocating for programs, and providing resources and trainings for others. The challenges included funding, additional academic requirements, facilities and equipment, and other obligations.

Social Cognitive Theory

Social cognitive theory was useful in explaining the interaction between the perspectives of physical educators, the influencing factors, and the implementation of CSPAPs in K-12 school and community settings (Figure 11). Five personal and cognitive factors reflected physical educators' perceptions regarding the CSPAP model and its implementation. First, physical activity program implementation knowledge existed, but there was a lack of knowledge related directly to the formalized CSPAP model. Second,

there was inquisitiveness related to the CSPAP model. Third, varying opinions were expressed regarding physical activity expertise and fulfilling the role of the director of physical activity/physical activity leader. Fourth, physical activity philosophies provided a foundation for the motives related to implementing CSPAPs. Last, there were three distinct motives that influenced CSPAP implementation behavior: more physical activity was needed; enhancing the affective domain through physical activity; and it made me (the physical educator) feel better. Environmental factors that facilitated and challenged the CSPAP implementation process, and ultimately influencing CSPAP implementation behaviors, were also identified.

Personal and Cognitive Factors

According to Bandura (1986, 1989), conceptions, beliefs, self-perceptions, intentions, expectations, and goals shaped behaviors. Cognitive and other personal factors included perceived self-efficacy, behavioral capability, self-control, and expectations and expectancies (Nigg & Geller, 2012). Physical educators demonstrated perceived self-efficacy in that their philosophies included a strong belief in the importance of and benefits gained from physical activity participation, and therefore, offered physical activity opportunities in a variety of ways. They put forth effort and demonstrated perseverance to break through barriers, such as funding, limited time due to additional academic demands, facilities and equipment, and other obligations, in order to offer and contribute to school-wide physical activity opportunities. The physical educators, both at the elementary and the secondary levels, believed they could make a difference in the lives of their students, faculty, staff, and community members, which influenced their CSPAP implementation behavior.

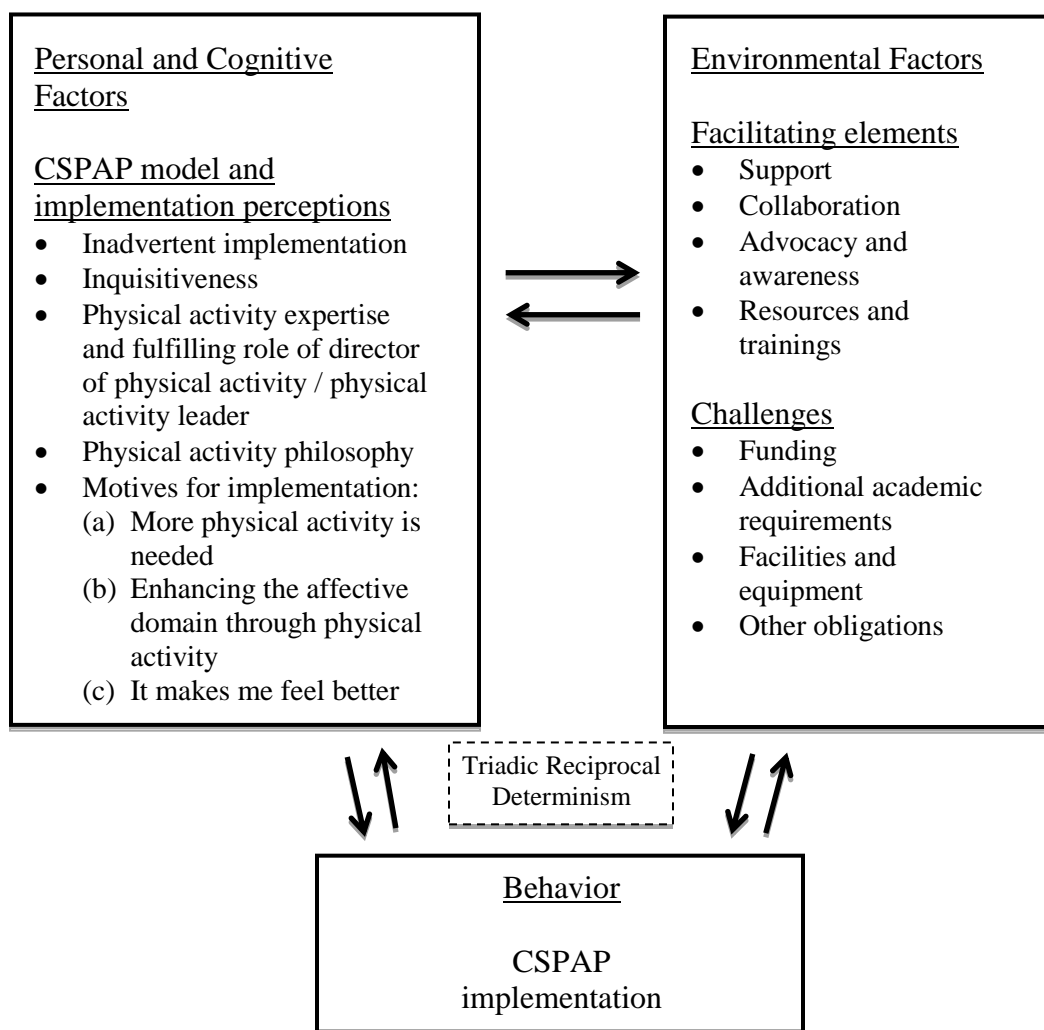


Figure 11. Perceptions and factors influencing Comprehensive School Physical Activity Program [CSPAP] implementation by physical educators explained through social cognitive theory (Adapted from Bandura, 1986).

Another personal and cognitive factor that influenced CSPAP implementation behavior was the behavioral capability of the physical educators. Behavioral capability referred to the level of knowledge and skill necessary to perform any given behavior (Glanz et al., 2002). In this particular study, behavioral capability referred to the physical educators' knowledge and skills to be able to effectively implement CSPAPs. Although there was a lack of knowledge of the formalized CSPAP model, multiple CSPAP

components were implemented within their school and community settings. Interestingly, while physical educators attended professional development related to coordinating and implementing physical activity opportunities in school settings, there was, however, little knowledge about the formalized CSPAP model, indicating some current physical activity professional development was not utilizing the CSPAP framework in their teachings or the formalized CSPAP model was not widely disseminated. Physical educators demonstrated behavioral capability in implementing physical activity programs despite their mixed opinions regarding their role as the physical activity director within their school and community settings. In accordance with existing literature, the perceptions of physical educators regarding their responsibilities in leading CSPAP efforts, particularly as the physical activity expert within their school and community setting, remained ambiguous (Centeio, Erwin, et al., 2014). The varying responses from participants related to CSPAP knowledge and their perceptions as the physical activity expert indicated it was unclear whether physical educators felt they lacked the knowledge to fulfill the role of the physical activity leader, if they were unmotivated to take on this role, or if they simply were doing what they could with the time and resources available within their individual school and community environments.

According to social cognitive theory, the construct of self-control included ones' ability to self-monitor, set goals, solve problems, and self-reward (Glanz et al., 2002). At the same time, school physical activity implementation was influenced by the teacher's individual goals for the program and the alignment of school goals related to physical activity (Parks et al., 2007). Similar to findings by Centeio, Erwin, et al. (2014), physical activity programs in this study were adapted to meet the needs of the student, faculty,

staff, and community populations within each individual school and community setting. Physical educators were able to effectively set goals and solve problems related to their individual environments in order to implement physical activity programs.

Last, physical educators' physical activity philosophies included positive values and beliefs, which were the driving force influencing CSPAP implementation.

Comprehensive School Physical Activity Program implementation behaviors occurred for three main reasons, and it was no surprise these reasons mirrored physical educators' physical activity philosophies. First, physical educators believed more physical activity was needed; therefore, they offered physical activity opportunities in addition to their quality physical education programs. Second, physical educators strongly believed in enhancing components within the affective domain, such as character building, personal and social responsibility, and physical activity and sport etiquette, so they provided environments where students, faculty, staff, and community members could experience, learn, and practice these life skills through physical activity. These findings, similar to those of Doolittle and Rukavina (2014), indicated CSPAPs were implemented for reasons beyond just the physical benefits of physical activity. Third, physical educators verbally expressed that they valued the benefits gained from physical activity participation for themselves; and similar to other educators in the field (Doolittle & Rukavina, 2014), it seemed as though they were passionate about providing these opportunities for others, as well as enjoyed teaching how to be physically active for a lifetime. They felt rewarded knowing they were contributing to the lives of others in healthy, positive ways. Overall, similar to findings by Larsen et al. (2013), CSPAP implementation that encouraged a school-wide culture embracing physical activity was influenced by physical educators

philosophies; because physical educators valued creating an awareness of the importance of living healthy, active lifestyles, their resulting behaviors included providing physical activity in their school and community settings. In addition, their motives for implementing CSPAPs reflected these beliefs.

Environmental Factors

According to social cognitive theory, environmental factors were those that existed outside of the individual and influenced behavior (Glanz et al., 2002). Although these physical educators taught various grade levels (pre K-12), at schools in various locales, and in schools with a wide variety of free and reduced price lunch eligibility, they all experienced environmental factors that facilitated and challenged the physical activity program implementation process. Eight environmental factors influenced physical educators' CSPAP implementation behavior within their school and community settings; four factors facilitated and four factors challenged the implementation process.

Facilitating elements. Physical educators identified four factors that facilitated CSPAP implementation. First, similar to existing literature, support was essential to effective CSPAP implementation. School physical activity research has identified support, motivation, and accountability from a variety of stakeholders as facilitators in the physical activity implementation process (Centeio, Erwin, et al, 2014; Doolittle & Rukavina, 2014; Kulinna et al., 2012; Patton, 2012; Tjomsland, 2010). Similarly, for the physical educators within this study, support came in a variety of forms including funding and personnel, such as from administration, faculty, staff, and community members.

Second, collaboration was an essential component to CSPAP implementation. Recent research stated, "CSPAPs are intended to be team efforts; thus, one person may

organize or develop programs for activity, but assistance should be provided from others for the opportunities to come to fruition” (Centeio, Erwin, et al., 2014, p. 506). Physical educators played a large role in organizing and coordinating CSPAP implementation, but they were not the sole implementers of physical activity; and this should not have been a realistic expectation for a full-time physical educator. This aligned with other information that had indicated effective and successful CSPAP implementation required an environment that allowed for and encouraged teacher collaboration, building partnerships, networking, and time for professional development among school personnel (Castelli, Carson, & Kulinna, 2014; Doolittle & Rukavina, 2014; Huberty et al., 2012; Jones et al., 2014; Kulinna et al., 2012; Lasky et al., 2001; McMullen et al., 2014; Samdal & Rowling, 2011; Tjomsland, 2010). Despite the busy schedules for teachers of all disciplines, these physical educators and teachers in their environments were able to find time to collaborate and work together to provide physical activity opportunities.

Classroom teachers had the potential to influence physical activity behavior because students spent most of the school day in classrooms with these teachers; and children’s physical activity levels during the school day could have been increased when classroom teachers incorporated physical activity throughout the school day (Goh et al., 2014).

When physical educators collaborated with classroom teachers, CSPAP implementation increased and became more effective in providing various physical activity opportunities for students and staff throughout the school day.

Third, physical educators worked diligently to create awareness and advocate for physical activity programs in a variety of ways that ultimately facilitated CSPAP implementation. Collaboration within the school setting provided information to the

classroom teachers about how to organize, manage, and incorporate physical activity before, during, and after school. Physical educators provided physical activity ideas that were easy, enjoyable, required little equipment, and were short in length, enhancing the likelihood classroom teachers would utilize physical activity in their classrooms (McMullen et al., 2014). Increasing physical activity awareness, knowledge and skills attempted to build a school culture that embraced healthy, physically active lifestyles, supporting the notion that, “such a cultural shift may allow for more positive experiences implementing other components of CSPAP” (Goh et al., 2014, p. 568).

Last, when physical educators provided resources and trainings for other school personnel, it assisted them in CSPAP implementation throughout the entire school and community. When implementing physical activity opportunities, skill and competence were essential components affecting the success of implementation, especially for classroom teachers who may have struggled organizing and managing physical activity in a classroom and school setting (Larsen et al., 2013; Lasky et al., 2001; McMullen et al., 2014). Physical educators spent time and energy providing resources and trainings for classroom teachers so they could develop the skills and competence necessary to incorporate physical activity opportunities in support of healthy, active lifestyles for both themselves and their students.

Challenges. Previous research has indicated three challenges to CSPAP implementation for physical educators and classroom teachers to include the academic success of students, increasing demands and requirements related to academic achievement, and the prioritization of core subject areas (Castelli et al., 2014; Dwyer et al., 2003; Huberty et al., 2012; Kulinna et al., 2012; Lasky et al., 2001; McMullen et al.,

2014; Patton, 2012); it was no different for these physical educators. A lack of time or decreased physical education and physical activity time in physical education was experienced due to an emphasis on general academics and standardized testing, and classroom teachers struggled with managing time for physical activity with the increasing demands for academic achievement and the prioritization of academics over physical activity emphasized by administrators. In order to assist in CSPAP implementation, it was recommended that physical activity be formalized in policies, plans, curriculum, and evaluation so that physical activity was identified as a priority (Dwyer et al., 2003; Tjomsland, 2010). Within the schools in this study, academic achievement took priority, creating barriers to CSPAP implementation and the time allotted for physical activity opportunities and collaboration among teachers. Although physical educators were attempting to take steps towards formalizing physical activity throughout their schools and communities, it had been an uphill battle. Although this still has remained a challenge, recent research has indicated utilizing the CSPAP model could be effective in institutionalizing physical activity programs in school and community settings (Castelli et al., 2014; Centeio, McCaughtry, et al., 2014). One strategy that may assist in formalizing physical activity during the school day was to collaborate with administrators to establish a designated time for physical activity in the school schedule. Future research should examine effective and successful strategies that could be utilized to formalize physical activity policy, plans, and evaluation in school and community settings.

Similar to existing research, the availability of resources, facilities, and equipment in the school environment influenced CSPAP implementation (Dwyer et al., 2003; Jones et al., 2014; Lasky et al., 2001). The availability and quality of facilities and equipment

inhibited and dictated the types and quantity of physical activity programs offered within schools and communities. Establishing partnerships with other physical educators and community organizations, and utilizing joint use agreements, could be one strategy to overcome equipment and facilities barriers (Jones et al., 2014). Research should continue to examine the influence of facilities and equipment on the implementation of physical activity programs, as well as effective strategies for overcoming these challenges.

Despite the lack of formalized knowledge and mixed opinions regarding the role of the physical educator in CSPA programming (personal and cognitive factors), and the environmental challenges faced when implementing CSPAPs, physical educators were able to use their existing knowledge and physical activity training, draw on their traits as lifelong learners, and rely on their physical activity philosophy underpinning their motives (personal and cognitive factors) in combination with the environmental facilitators to overcome existing personal, cognitive, and environmental barriers, resulting in behaviors that supported and implemented multiple components of CSPAPs within their school and community settings.

Limitations

Several limitations existed within this research. First, although the initial survey was sent to a large number of physical educators who potentially met the participant criteria, the physical educators who had an interest and desire to be involved in the profession and in learning more about CSPAPs were willing to participate in the study. It was possible the participant population was skewed simply because they responded and were interested in learning more about information related to the study. It may be necessary to specifically target physical educators who were not as involved in the

profession, as well as alter the data collection methods in order to influence the willingness of additional physical educators to participate and provide information regarding their perceptions of and influences related to CSPAP implementation.

Second, the data within this study were self-reported by participants; therefore, there were few additional sources of information to support the information gathered from the interviews, artifacts, and documents. It is important future research include various sources of data, in addition to simply self-report methods, to support the information and evidence of the physical activity programs physical educators implement.

Third, this study examined CSPAPs at all three levels of education, elementary, middle, and high school. At each of the three levels, differences existed in physical activities that were developmentally appropriate; physical activity structure, management and organization; and school scheduling, organization, policies, and procedures. Future research should examine each level individually and in more depth in order to gain a better understanding of the facilitators and challenges to CSPAP implementation specific to each level, as opposed to across all grade levels.

Last, this research included all of the CSPAP components and studied the framework as a whole when exploring the implementation of physical activity programs. It would be beneficial for future research to examine each component individually in order to determine untrained physical educators' perceptions and the influencing factors for individual CSPAP components in more depth and detail.

Conclusions

Physical educators have been making great efforts to lead, advocate for, and deliver physical activity opportunities that assist students, faculty, staff, and community members in achieving appropriate physical activity recommendations. Comprehensive School Physical Activity Program goals have strived to help students achieve the recommended 60 minutes of MVPA each day, as well as develop physical literacy for individuals so they could positively participate in a lifetime of physical activity (AAHPERD, 2011b). Benefits related to the affective domain, such as building and enhancing relationships, life skills, and emotional components could be gained through physical activity participation (Doolittle & Rukavina, 2014), yet current CSPAP goals did not acknowledge these benefits. It may be prudent to add CSPAP goals more specifically related to enhancing knowledge and skills that fell within the affective domain, as this was one major reason why physical educators chose to implement CSPAPs. Research should continue to examine the reasons why physical educators, both formally trained and untrained in utilizing the CSPAP model, implement CSPAPs within their school and community settings.

Interestingly, funding was one factor that was both a facilitator, identified as a support, and an inhibitor to implementing CSPAPs. It was important teacher education programs and physical activity professional development included identifying and solidifying sources of funding to support and sustain physical activity programming and assist physical activity leaders in overcoming this barrier. Future research should further examine the role of funding, as both a facilitator and a challenge in the CSPAP

implementation process. In addition, it was important future research determine effective strategies physical educators could utilize to prevent and overcome these challenges.

After examining the implementation of physical activity programs by physical educators in K-12 school and community settings, multiple components of CSPAPs were implemented by all of the physical educators. The majority of the physical educators (13 of the 17, or 76.0%) implemented 5 out of the 5 components, a few of the physical educators (2 of the 17, or 12.0%) implemented 4 out of the 5 components, and a few (2 of the 17, or 12.0%) implemented 3 out of the five components of a CSPAP; however, in the current literature, it was unclear how many CSPAP components were necessary to define the program as an official CSPAP. According to the CSPAP model, physical activity leaders should have coordinated and implemented programs in all five areas depicted in the model; however, this may have been unrealistic or unnecessary for some schools and communities. Placing a strong emphasis on adhering to this one particular model may restrict and limit existing physical activity programs. This raised the question of whether it was the model or the concept that was important. While all CSPAP components play important roles in providing physical activity opportunities for all members of a school and community, the question remained, “Does a CSPAP necessarily have to include extensive and elaborate programs in all five areas within the specific CSPAP model?”

What may have been more important than adhering to the specific CSPAP model was the concept of promoting and providing more opportunities for physical activity with goals related to encouraging healthy, active lifestyles, and achieving the recommended 60 minutes of MVPA each day. Many physical activity programs in school and community settings included multiple CSPAP components within one “program” or physical activity

opportunity. For example, a running program may include students, staff, family, and community members. This may have led to confusion when attempting to adhere to the specific CSPAP model because, in the model, physical activity opportunities for each of these populations was depicted as separate areas, leading to the interpretation that there should have been separate programs for each of the five areas. What may be more appropriate was a broad, “whole-of-school” approach to promoting and providing physical activity in school and community settings (Institute of Medicine, 2013). “This approach requires participation from all people who take part in the day-to-day functioning of the school, including teachers, principals, school administrators, superintendents, students, and parents” (Institute of Medicine, 2013, p. 2). This approach would allow physical activity leaders to implement physical activity programs based upon the needs of the school and community, rather than attempting to adhere to a specific model that may not have been appropriate or realistic for unique settings. It may be more important for physical activity leaders to first determine the needs of the school and community in meeting MVPA recommendations for children, adolescents and adults, and then provide physical activity opportunities in the areas that were deficient. One of the main motives for CSPAP implementation was more physical activity was needed, and the programs offered by physical educators were physical activities the participants were not exposed to in the community. Physical educators hesitated in offering physical activity programs that were already offered in the community; therefore, they based their specific programs on meeting the needs of the school and community, rather than adhering to the specific CSPAP model.

These physical educators were lifelong learners; they contributed to the physical education and physical activity profession in various ways and were highly involved in professional development opportunities related to enhancing physical activity in their school and community settings; however, they still lacked knowledge of the formalized CSPAP model. In the end, the ultimate goal of physical activity programs in school and community settings was to prevent sedentary behaviors and provide more physical activity opportunities for all members of school and community settings. Even though the CSPAP model was becoming more widely accepted by national organizations such as the Society of Health and Physical Educators and the Centers for Disease Control and Prevention, CSPAPs were only one model that fell within the notion of “whole school” physical activity programs and it was important emphasis be placed on the physical activity opportunities provided in school and community settings, rather than adhering to a specific physical activity model. For those schools and communities who did not provide adequate physical activity opportunities and were not attempting to assist students in achieving the recommended 60 minutes of MVPA each day, it was important for research to determine the roadblocks inhibiting the implementation of physical activity programs.

Opinions related to the physical educator fulfilling the role of the physical activity leader (PAL) in school settings varied greatly. In addition, opinions related to the physical activity expert in school settings were also diverse. Although some research has indicated the physical educator was most likely the best person to fill the role of physical activity director in school settings, not all teachers felt this role was included within their job description as a physical educator. Funding and other obligations remained barriers to

physical activity program implementation; therefore, it may not have been realistic to expect physical educators to fulfill the physical activity leader role with little time in addition to their full-time teaching position and with little to no compensation. In order to effectively determine the needs of a school and community, it may be necessary to establish a full-time director of physical activity within a school district, individual schools, or communities to best meet physical activity needs when providing necessary training and delivering opportunities to meet physical activity recommendations.

Establishing this role, similar to an athletic director position in districts and schools, would allow for adequate collaboration time, accurate training of school personnel, implementation of physical activity opportunities, and assessment and evaluation of physical activity programs. Although a physical educator could fulfill this role, the perceptions regarding the responsibilities of the physical educator varied and it may have been difficult to do so while also fulfilling a full-time quality physical education teaching position. It is important future research continue to explore the perceptions of physical educators, classroom teachers, administrators, and community members in regards to the role physical educators should play in schools and communities.

The larger idea of “whole school” physical activity programs, whether following a specific model such as a CSPAP (AAHPERD, 2011b) or Moving to Success (Steller & Young, 1994), or simply providing physical activity opportunities that met the needs of unique schools and communities, was not a new concept. Promoting and advocating for healthy, physically active lifestyles was the foundation of many higher education programs and professional development for future and in-service professionals in the health and physical education fields. Recent research utilizing specific CSPAP

professional development and training for physical educators determined having an action plan was one key to successful CSPAP implementation (Centeio, Erwin, et al., 2014). Unlike the previous research, creating an action plan was not a facilitating component identified by physical educators in the field who had not participated in formal CSPAP professional development. Perhaps higher education public health programs, higher education physical education teacher education programs, and continuing professional development that was not specific to CSPA programming should consider including action plans as a part of their instruction. Learning how to create and implement an action plan has the potential to assist physical activity leaders in determining the needs of their specific populations, creating strategies to meet these needs, and having a specific plan for implementation of the physical activity programs. It was important for higher education public health programs, higher education teacher education programs, and continuing professional development to continue to examine the content and delivery of “whole school” physical activity programs.

Policy and institutional anchoring were two characteristics associated with successful school change (Samdal & Rowling, 2011; Tjomsland, 2010) and had the potential to assist with establishing and enforcing whole school physical activity programs. It was important policies and institutional anchoring related to physical activity time, CSPAP professional development and collaboration time for teachers, and CSPAP implementation were established. Even if physical activity programs were already in place, establishing policies had the potential to prioritize physical activity in school and community settings, assist in sustaining existing physical activity programs, and provide the support necessary to establish a school-wide culture that values physically active

lifestyles. Continued research examining the role physical activity policy played in the implementation, initiation, and maintenance of physical activity programs was essential and held the potential to provide physical activity leaders and administrators with effective implementation strategies to overcome challenges in the establishment of physical activity as a priority in school and community settings. In addition, as policies mandating physical activity and physical education time increased, the expectations for physical educators and physical activity leaders may continue to evolve or even increase (Bulger & Housner, 2009). Physical educators were the most likely candidates to be held responsible for the implementation of physical activity programs and adhering to these new physical activity policies; therefore, it was important that research closely examine how this was going to affect the role of the physical educator in school settings. This research should include the examination of the concerns of physical activity leaders who may need strategies and resources to overcome barriers to CSPAP implementation within their unique school and community environments, more defined roles and responsibilities of the physical activity leader, and effective strategies to motivate school leaders in the form of external rewards or recognition. Last, more research is necessary examining whether or not it is essential the physical activity leader be the physical educator; or if there are other school leaders who have the knowledge and motivation to take on the role of the physical activity leader and how CSPAP professional development could adequately equip these CSPAP leaders for success.

Although providing opportunities for physical activity in addition to quality physical education was not a new concept, it was important research continue to examine the various physical activity models that existed, facilitating elements and barriers to

physical activity implementation, and the effectiveness and importance of specific models in relation to the overall idea and concept of providing more physical activity opportunities for specific populations within school and community settings. Despite what title was assigned to these physical activity programs or which, if any, model was used, these physical educators were implementing physical activity opportunities for their schools and communities in a variety of ways. Although each physical educator taught in a distinctive environment, and grade levels taught, school locales, and free and reduced price lunch eligibility varied, they all implemented multiple opportunities for physical activity that attempted to meet the unique needs of their environments and help individuals meet the appropriate recommendations for physical activity. They did not specifically utilize or adhere to the CSPAP model, but they were implementing multiple components depicted in that model. Similar to other research findings related to implementing physical activity programs, participants described several factors that assisted in implementing physical activity opportunities. These factors included: support from multiple sources, such as funding, administrators and colleagues, collaboration, creating physical activity awareness and advocating for a school culture that valued and believed in the positive benefits of physical activity participation, and educating others about why healthy, active lifestyles were so important. They were also faced with challenges that others, as indicated by existing literature, have experienced. Increases in the focus on other academic areas, the use and availability of equipment and facilities, and a lack of time due to other obligations have hindered physical educators in their implementation attempts. These physical educators were not simply providing physical activity for more activity time; they were passionate about teaching children and

adolescents, valued physical activity, and spent much of their time and energy providing physical activity programs because it was what they thought was best for the students of their schools and communities. After all, as Sally indicated, “that’s kind of always what I go back to with teachers is, ‘what’s the best interest of the kids?’”

REFERENCES

- American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD).
(2011a). *2011 Comprehensive school physical activity program (CSPAP) survey report*. Reston, VA. Retrieved from
<http://www.aahperd.org/letsmoveinschool/news/report.cfm>
- American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD).
(2011b). *Overview of a comprehensive school physical activity program*. Reston, VA. Retrieved from
<http://www.aahperd.org/letsmoveinschool/about/overview.cfm>
- American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD).
(2012). *Comprehensive School Physical Activity Program (CSPAP) policy continuum*. Reston, VA. Retrieved from
<http://www.aahperd.org/letsmoveinschool/tools/upload/CSPAP-Policy-Continuum-2-10-12final.pdf>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Upper Saddle River, NJ: Prentice Hall.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Vol. 6. Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.
- Beets, M. W., Huberty, J., & Beighle, A. (2012). Physical activity of children attending afterschool programs. *American Journal of Preventive Medicine*, 42(2), 180-184.

- Beets, M. W., Wallner, M., & Beighle, A. (2010). Defining standards and policies for promoting physical activity in afterschool programs. *Journal of School Health, 80*(8), 411-417.
- Beighle, A., & Moore, M. (2012). Physical activity before and after school. *Journal of Physical Education, Recreation and Dance, 83*(6), 25-28. doi:10.1080/07303084.2012.10598792
- Beighle, A., Morgan, C. F., Le Masurier, G., & Pangrazi, R. P. (2006). Children's physical activity during recess and outside of school. *Journal of School Health, 76*(10), 516-520.
- Brusseau, T. A., Kulinna, P. H., Tudor-Locke, C., Ferry, M., van der Mars, H., & Darst, P. W. (2011). Pedometer-determined segmented physical activity patterns of fourth- and fifth-grade children. *Journal of Physical Activity and Health, 8*(2), 279-286.
- Bulger, S. M., & Housner, L. D. (2009). Relocating from easy street: Strategies for moving physical education forward. *Quest, 61*, 442-469.
- Carson, R. (2012). Certification and duties of a director of physical activity. *Journal of Physical Education, Recreation and Dance, 83*(6), 16-19, 29.
- Carson, R. L., Pulling, A. C., Wolak, M., Castelli, D. M., & Beighle, A. (2014). Facilitators and inhibitors of the director of physical activity program and comprehensive school physical activity program implementation [abstract]. *Peer-Reviewed Abstracts, Research Quarterly for Exercise and Sport, 85*:sup1, A-56. doi:10.1080/02701367.2014.930647

- Castelli, D. M., & Beighle, A. (2007). The physical education teacher as school activity director. *Journal of Physical Education, Recreation and Dance*, 78(5), 25-28.
- Castelli, D. M., Carson, R. L., & Kulinna, P. H. (2014). Special issue: Comprehensive school physical activity programs. *Journal of Teaching in Physical Education*, 33, 435-439.
- Castelli, D. M., Hillman, C. H., Buck, S. M., & Erwin, H. E. (2007). Physical fitness and academic achievement in third- and fifth-grade students. *Journal of Sport and Exercise Psychology*, 29, 239-252.
- Centeio, E. E., Erwin, H., & Castelli, D. M. (2014). Comprehensive school physical activity programs: Characteristics of trained teachers. *Journal of Teaching in Physical Education*, 33, 492-510.
- Centeio, E. E., McCaughtry, N., Gutuskey, L., Garn, A. C., Somers, C. L., Shen, B., Martin, J. J., & Kulik, N. L. (2014). Physical activity change through comprehensive school physical activity programs in urban elementary schools. *Journal of Teaching in Physical Education*, 33, 573-591.
- Centers for Disease Control and Prevention (CDC). (1997). Guidelines for school and community programs to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Report (MMWR)*, 46, RR-6. Retrieved from the Centers for Disease Control and Prevention website: <http://www.cdc.gov/mmwr/PDF/rr/rr4606.pdf>
- Centers for Disease Control and Prevention (CDC). (2010a). *State indicator report on physical activity, 2010*. Atlanta, GA: U.S. Department of Health and Human Services.

Centers for Disease Control and Prevention (CDC). (2010b). *The association between school-based physical activity, including physical education, and academic performance*. Atlanta, GA: U.S. Department of Health and Human Services.

Retrieved from the Centers for Disease Control and Prevention website:

http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf

Centers for Disease Control and Prevention (CDC). (2011). *School health guidelines to promote healthy eating and physical activity*. Atlanta, GA. Retrieved from the

Centers for Disease Control and Prevention website:

<http://www.cdc.gov/healthyyouth/npao/strategies.htm>

Centers for Disease Control and Prevention (CDC). (2013). *Comprehensive school physical activity program (CSPAP): A guide for schools*. Atlanta, GA. Retrieved

from the Centers for Disease Control and Prevention website:

<http://www.cdc.gov/healthy youth/physicalactivity/cspap.htm>

Centers for Disease Control and Prevention (CDC). (2014). *The 2013 youth risk behavior surveillance-United States*. Atlanta, GA. Retrieved from the Centers for Disease

Control and Prevention website: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

Colorado Department of Education (CDE). (2014). *Fall 2014 kindergarten (K) through 12th grade free and reduced lunch eligibility by school*. Retrieved from

<http://www.cde.state.co.us/cdereval/2014pk12frldistrictschoolpdf>

- Collins, M. E., Lane, T. S., & Stevens, J. W. (2003). Teen living programs for young mothers receiving welfare: An analysis of implementation and issues in service delivery. *Families in Society: The Journal of Contemporary Human Services*, 84(1), 31-38.
- Corbin, C. B. (2002). Physical education as an agent of change. *Quest*, 54(3), 181-195. doi:10.1080/00336297.2002.10491773
- Corbin, J., & Strauss, A. (2007). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage.
- Council on Sports Medicine and Fitness and Council on School Health. (2006). Active healthy living: Prevention of childhood obesity through increased physical activity. *Pediatrics*, 117(5), 1834-1842. doi:10.1542/peds.2006-0472
- Credibility. (n.d.). *Merriam-Webster online dictionary*. Merriam-Webster, Incorporated. Retrieved from <http://www.merriam-webster.com/dictionary/credibility>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative Inquiry. *Theory Into Practice*, 39(3), 124-130. doi:10.1207/s15430421tip3903_2
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- Donnelly, J. E., Jacobsen, D. J., Whatley, J. E., Hill, J. O., Swift, L. L., Cherrington, A., . . . Reed, G. (1996). Nutrition and physical activity program to attenuate obesity and promote physical and metabolic fitness in elementary school children. *Obesity Research*, 4(3), 229-243.

- Doolittle, S. A., & Rukavina, P. B. (2014). Case study of an institutionalized urban comprehensive school physical activity program. *Journal of Teaching in Physical Education, 33*, 528-557.
- Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W. B. (2003). A review of research on fidelity of implementation: Implications for drug abuse prevention in school settings. *Health Education Research, 18*(2), 237-256.
- Dwyer, J. J., Allison, K. R., Barrera, M., Hansen, B., Goldenberg, E., & Boutilier, M. A. (2003). Teachers' perspectives on barriers to implementing physical activity curriculum guidelines for school children in Toronto. *Canadian Journal of Public Health, 94*(6), 448-452.
- Ewart, C. K., Young, D. R., & Hagberg, J. M. (1998). Effects of school-based aerobic exercise on blood pressure in adolescent girls at risk for hypertension. *American Journal of Public Health, 88*(6), 949-951.
- Fashola, O. S. (2002). *Building effective afterschool programs*. Thousand Oaks, CA: Sage.
- Fedewa, A. L., & Ahn, S. (2011). The effects of physical activity and physical fitness on children's achievement and cognitive outcomes: A meta-analysis. *Research Quarterly for Exercise and Sport, 82*(3), 521-535.
- Felton, G., Saunders, R. P., Ward, D. S., Dishman, R. K., Dowda, M., & Pate, R. R. (2005). Promoting physical activity in girls: A case study of one school's success. *Journal of School Health, 75*(2), 57-62.

- Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Chapel Hill, NC. Retrieved from the National Implementation Research Network website: <http://nirn.fpg.unc.edu/sites/nirn.fpg.unc.edu/files/resources/NIRN-MonographFull-01-2005.pdf>
- Fuller, D., Sabiston, C., Karp, I., Barnett, T., & O'Loughlin, J. (2011). School sports opportunities influence physical activity in secondary school and beyond. *Journal of School Health*, 81(8), 449-454.
- Glanz, K., Rimer, B. K., & Lewis, F. M. (2002). *Health behavior and health education. Theory, research and practice*. San Francisco, CA: Wiley & Sons.
- Goh, T. L., Hannon, J., Webster, C. A., Podlog, L. W., Brusseau, T., & Newton, M. (2014). Effects of a classroom-based physical activity program on children's physical activity levels. *Journal of Teaching in Physical Education*, 33, 558-572.
- Graham, G., Holt/Hale, S. A., & Parker, M. (2013). *Children moving: A reflective approach to teaching physical education* (9th ed.). New York, NY: McGraw-Hill.
- Guide to Community Preventive Services. (2011). *Behavioral and social approaches to increase physical activity: enhanced school-based physical education*. Retrieved from www.thecommunityguide.org/pa/behavioral-social/schoolbased-pe.
- Guide to Community Preventive Services. (2012). *Increasing physical activity*. Retrieved from <http://www.thecommunityguide.org/pa/index.html>
- Guide to Community Preventive Services. (2013). *What is the community guide?* Retrieved from <http://www.thecommunityguide.org/index>

Harrell, J. S., McMurray, R. G., Gansky, S. A., Bangdiwala, S. I., & Bradley, C. B.

(1999). A public health vs. a risk-based intervention to improve cardiovascular health in elementary school children: The cardiovascular health in children study. *American Journal of Public Health*, 89(10), 1529-1535.

Hopper, C. A., Munoz, K. D., Gruber, M. B., MacConnie, S., Schonfeldt, B., & Shunk, T.

(1996). A school-based cardiovascular exercise and nutrition program with parent participation: An evaluation study. *Children's Health Care*, 25(3), 221-235.

Huberty, J., Dinkel, D., Coleman, J., Beighle, A., & Apenteng, B. (2012). The role of

schools in children's physical activity participation: Staff perceptions. *Health Education Research*, 27(6), 986-995. doi:10.1093/her/cys071

Institute of Medicine (IOM). (2013). Educating the student body: Taking physical

activity and physical education to school. Retrieved from

<http://www.iom.edu/Reports/2013/Educating-the-Student-Body-Taking-Physical-Activity-and-Physical-Education-to-School.aspx>

Interscholastic. (2011). *Merriam-Webster online dictionary*. Merriam-Webster,

Incorporated. Retrieved from <http://www.merriam-webster.com/dictionary/interscholastic>

Intrinsic. (2015). *Merriam-Webster online dictionary*. Retrieved from

<http://www.wordcentral.com/cgi-bin/student?book=Student&va=intrinsic>

Jones, E. M., Taliaferro, A. R., Elliott, E. M., Bulger, S. M., Kristjansson, A. L., Neal,

W., & Allar, I. (2014). Feasibility study of comprehensive school physical activity programs in appalachian communities: The McDowell CHOICES project.

Journal of Teaching in Physical Education, 31, 467-491.

- Kulinna, P. H., Brusseau, T., Cothran, D., & Tudor-Locke, C. (2012). Changing school physical activity: An examination of individual school designed programs. *Journal of Teaching in Physical Education, 31*, 113-130.
- Larsen, T., Samdal, O., & Tjomsland, H. (2013). Physical activity in schools: A qualitative case study of eight Norwegian schools' experiences with the implementation of a national policy. *Health Education, 113*(1), 52-63.
doi:10.1108/09654281311293637
- Lasky, S., Moore, S., & Sutherland, S. (2001). Teachers' experience of mandated reform: Too much pressure and too little support. *Research in Ontario Secondary Schools: Series of Brief Reports, 6*(3). Retrieved from www.oise.utoronto.ca/research/field-centres/TVC/RossReports/vol6no3.htm
- Lee, S. M., Wechsler, H., & Balling, A. (2006). The role of schools in preventing childhood obesity. *Research Digest, 7*(3), 1-8.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- McKenzie, T. L. (2007). The preparation of physical educators: A public health perspective. *Quest, 59*(4), 345-357. doi:10.1080/00336297.2007.10483557
- 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.
- McMullen, J. M. (2010). *Experiences of PETE majors participating in an out-of-class-time physical activity promotion and facilitation-based internship course*. (Doctoral dissertation). Retrieved from ProQuest LLC. (UMI 3410743)

- McMullen, J., Kulinna, P., & Cothran, D. (2014). Physical activity opportunities during the school day: Classroom teachers' perceptions of using activity breaks in the classroom. *Journal of Teaching in Physical Education*, 33, 511-527.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Meyer, U., Roth, R., Zahner, L., Gerber, M., Puder, J. J., Hebestreit, H., & Kriemler, S. (2013). Contribution of physical education to overall physical activity. *Scandinavian Journal of Medicine and Science in Sports*, 23, 600-606.
doi:10.1111/j.1600-0838.2011.01425.x
- National Association for Sport and Physical Education (NASPE). (2004). *Moving into the future: National standards for physical education* (2nd ed.). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.
- National Association for Sport and Physical Education (NASPE). (2008). *Comprehensive school physical activity programs*. Reston, VA. Retrieved from the American Alliance for Health, Physical Education, Recreation and Dance website:
<http://www.aahperd.org/naspe/standards/PEPS.cfm>
- National Association for Sport and Physical Education (NASPE). (2011). *Physical education is critical to educating the whole child*. Reston, VA. Retrieved from the American Alliance for Health, Physical Education, Recreation and Dance website: <http://www.aahperd.org/naspe/standards/upload/Physical-Education-Is-Critical-to-Educating-the-Whole-Child-Final-5-19-2011.pdf>

National Association for Sport and Physical Education (NASPE). (2013). *Comprehensive school physical activity programs: Helping all students achieve 60 minutes of physical activity each day*. Reston, VA. Retrieved from the American Alliance for Health, Physical Education, Recreation and Dance website: <http://www.aahperd.org/naspe/standards/peps.cfm>

National Association for Sport and Physical Education (NASPE) and American Heart Association (AHA). (2012). *The 2012 shape of the nation report: The status of physical education in the USA*. Reston, VA. Retrieved from the American Alliance for Health, Physical Education, Recreation and Dance website: <http://www.aahperd.org/naspe/publications/Shapeofthenation.cfm>

National Physical Activity Plan Alliance. (2014). *The 2014 United States report card on physical activity for children and youth*. Retrieved from <http://www.physicalactivityplan.org/reportcard.php>

Nigg, C. R., & Geller, K. S. (2012). Theoretical approaches to physical activity intervention. In E. O. Acevedo (Ed.), *The Oxford handbook of exercise psychology* (pp. 252-272). New York, NY: Oxford University Press.

Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2012). Prevalence of obesity and trends in body mass index among US children and adolescents, 1999-2010. *JAMA*, 307(5), 483-490. doi:10.1001/jama.2012.40

Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2014). Prevalence of childhood and adult obesity in the United States, 2011-2012. *JAMA*, 311(8), 806-814. doi:10.1001/jama.2014.732

- Orlowski, M., Lorson, K., Lyon, A., & Minoughan, S. (2013). My classroom physical activity pyramid: A tool for integrating movement into the classroom. *Journal of Physical Education, Recreation, and Dance*, 84(9), 47-51.
- Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved from <http://www.emory.edu/EDUCATION/mfp/eff.html>
- Parcel, G. S., Simons-Morton, B., O'Hara, N. M., Baranowski, T., & Wilson, B. (1989). School promotion of healthful diet and physical activity: Impact on learning outcomes and self-reported behavior. *Health Education Quarterly*, 16(2), 181-199. doi:10.1177/109019818901600204
- Parks, M., Solomon, M., & Lee, A. (2007). Understanding classroom teacher's perceptions of integrating physical activity: A collective efficacy perspective. *Journal of Research in Childhood Education*, 21(3), 316-328.
- Pate, R. R., & Hohn, R. C. (Eds.). (1994). *Health and fitness through physical education*. Champaign, IL: Human Kinetics.
- Pate, R. R., Sallis, J. F., Ward, D. S., Stevens, J., Dowda, M., Welk, G. J., . . . Strikmiller, P. K. (2010). Age-related changes in types and contexts of physical activity in middle school girls. *American Journal of Preventive Medicine*, 39(5), 433-439.
- Pate, R. R., Stevens, J., Pratt, C., Sallis, J. F., Schmitz, K. H., Webber, L. S., . . . Young, D. R. (2006). Objectively measured physical activity in sixth-grade girls. *Archives of Pediatrics and Adolescent Medicine*, 160, 1262-1268.
- Pate, R. R., Trilk, J. L., Byun, W., & Wang, J. (2011). Policies to increase physical activity in children and youth. *Journal of Exercise Science and Fitness*, 9(1), 1-14.

- Pate, R. R., Yancey, A. K., & Kraus, W. E. (2010). *The 2008 physical activity guidelines for Americans: Implications for clinical and public health practice. American Journal of Lifestyle Medicine*, 4(3), 209-217. doi:10.1177/1559827609353300
- Patton, I. (2012). Teachers' perspectives of the daily physical activity program in Ontario. *Physical and Health Education Journal*, 78(1), 14-21.
- Physical Activity Guidelines Advisory Committee. (2008). *Physical activity guidelines advisory committee report, 2008*. Washington, DC: U.S. Department of Health and Human Services. Retrieved from the Office of Disease Prevention and health Promotion website: <http://www.health.gov/paguidelines/Report/pdf/CommitteeReport.pdf>
- Ratliffe, T. A. (1994). Teaching fitness in the elementary school: A comprehensive approach. In R. R. Pate & R. C. Hohn (Eds.), *Health and fitness through physical education* (pp. 147-153). Champaign, IL: Human Kinetics.
- Rink, J. (2012). The role of directors of comprehensive school physical activity programs-Part 1. *Journal of Physical Education, Recreation and Dance*, 83(6), 15, 28-29.
- Rink, J., Hall, T., & Williams, L. (2010). *Schoolwide physical activity: A comprehensive guide to designing and conducting programs*. Champaign, IL: Human Kinetics.
- Ross, J. G., & Gilbert, G. G. (1985). The national children and youth fitness study: A summary of findings. *Journal of Physical Education, Recreation and Dance*, 56(1), 45-50.
- Ryan, C. A., & Beighle, A. (2010). Resources for increasing physical activity in children and youth. *Strategies*, 24(1), 22-25.

- Sallis, J. F., McKenzie, T. L., Alcaraz, J. E., Kolody, B., Faucette, N., & Hovell, M. F. (1997). The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. *American Journal of Public Health, 87*(8), 1328-1334.
- Samdal, O., & Rowling, L. (2011). Theoretical and empirical base for implementation components of health-promoting schools. *Health Education, 111*(5), 367-390. doi:10.1108/09654281111161211
- Schwandt, T. A. (2007). *The SAGE dictionary of qualitative inquiry* (3rd ed.). Los Angeles, CA: Sage.
- Siedentop, D. (2009). National plan for physical activity: Education sector. *Journal of Physical Activity and Health, 6*(Suppl 2), S168-S180.
- Simons-Morton, B. G., Parcel, G. S., Baranowski, T., Forthofer, R., & O'Hara, N. M. (1991). Promoting physical activity and a healthful diet among children: Results of a school-based intervention study. *American Journal of Public Health, 81*(8), 986-991.
- Smith, M. A., & Claxton, D. B. (2003). Using active homework in physical education. *Journal of Physical Education, Recreation, and Dance, 74*(5), 28-32.
- Society of Health and Physical Educators (SHAPE America). (2013). *Grade-level outcomes for K-12 physical education*. Reston, VA: Author.
- Society of Health and Physical Educators (SHAPE America). (2014). *National standards and grade-level outcomes for K-12 physical education*. Champaign, IL: Human Kinetics.

- Steller, J. J., & Young, D. B. (1994). Moving to success: A comprehensive approach to physical education. In R. R. Pate & R. C. Hohn (Eds.), *Health and fitness through physical education* (pp. 177-184). Champaign, IL: Human Kinetics.
- Stellino, M. B., & Sinclair, C. D. (2013). Psychological predictors of children's recess physical activity motivation and behavior. *Research Quarterly for Exercise and Sport*, 84(2), 167-176. doi:10.1080/02701367.2013.786159
- Stellino, M. B., & Sinclair, C. D. (2014). Examination of children's recess physical activity patterns using the activities for daily living-playground participation (ADL-PP) instrument. *Journal of Teaching in Physical Education*, 33, 282-296.
- Stellino, M. B., Sinclair, C. D., Partridge, J. A., & King, K. M. (2010). Differences in children's recess physical activity: Recess activity of the week intervention. *Journal of School Health*, 80(9), 436-444.
- Tjomsland, H. E. (2010). Sustaining comprehensive physical activity practice in elementary school: A case study applying mixed methods. *Teachers and Teaching: Theory and practice*, 16(1), 73-95. doi:10.1080/13540600903475678
- Tudor-Locke, C., Lee, S. M., Morgan, C. F., Beighle, A., & Pangrazi, R. P. (2006). Children's pedometer-determined physical activity during the segmented school day. *Medicine and Science in Sports and Exercise*, 38(10), 1732-1738. doi:10.1249/01.mss.0000230212.55119.98
- Turner, L., Johnson, T. G., Slater, S. J., & Chaloupka, F. J. (2014). Physical activity practices in elementary schools and associations with physical education staffing and training. *Research Quarterly for Exercise and Sport*, 85(4), 488-501. doi:10.1080/02701367.2014.961053

- U.S. Department of Health and Human Services (USDHHS). (1996). *Physical activity and health: A report of the surgeon general*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Retrieved from the Centers for Disease Control and Prevention website:
<http://www.cdc.gov/nccdphp/sgr/contents.htm>
- U.S. Department of Health and Human Services (USDHHS). (2000). *Healthy people 2010: Understanding and improving health*. Washington, DC. Retrieved from the U.S. Department of Health and Human Services website: <http://www.healthypeople.gov/2010/Document/pdf/uih/2010uih.pdf>
- U.S. Department of Health and Human Services (USDHHS). (2008). *The 2008 physical activity guidelines for Americans*. Washington, DC. Retrieved from the U.S. Department of Health and Human Services website: <http://www.health.gov/paguidelines>
- U.S. Department of Health and Human Services (USDHHS). (2012). *Physical activity guidelines for Americans midcourse report: Strategies to increase physical activity among youth*. Washington, DC. Retrieved from the U.S. Department of Health and Human Services website: <http://www.health.gov/paguidelines>
- Ward, D. S., Saunders, R. P., & Pate, R. R. (2007). *Physical activity interventions in children and adolescents*. Champaign, IL: Human Kinetics.
- Wechsler, H., Devereaux, R. S., Davis, M., & Collins, J. (2000). Using the school environment to promote physical activity and healthy eating. *Preventive Medicine*, 31, 121-137. doi:10.1006/pmed.2000.0649

- Welk, G. (1999). *Promoting physical activity in children: Parental influences*. Retrieved from <http://files.eric.ed.gov/fulltext/ED436480.pdf>. (ED436480)
- Welk, G. J., Jackson, A. W., Morrow, J. R., Haskell, W. H., Meredith, M. D., & Cooper, K. H. (2010). The association of health-related fitness with indicators of academic performance in Texas schools [Supplemental material]. *Research Quarterly for Exercise and Sport*, 81(3), S16-S23.
- Williams, S. M., & Hannon, J. C. (2013). Physical education homework that involves the family. *Strategies*, 26(3), 3-8.

APPENDIX A

INITIAL EMAIL TO POTENTIAL PARTICIPANTS

Dear Physical Education Teacher,

My name is Catherine Berei and I am a physical education teacher education doctoral student at the University of Northern Colorado. My experiences as a professional in the field of teaching physical education, work on national committees, and my studies within my doctoral program have inspired me to research the factors related the implementation of comprehensive school physical activity programs (CSPAP) by physical educators.

I would like to invite you to participate in a short survey on comprehensive school physical activity programs and your willingness to participate further in the research study. The intent of the survey is to solicit participants for an interview regarding the perspectives and factors related to the implementation of physical activity programs by physical educators in their schools and communities. The survey will take approximately 5 minutes to complete and your responses will not be connected to your identity unless you choose to provide your contact information on the survey.

Please click on the link below, which will take you to the survey:
<https://unco.us.qualtrics.com/XXX>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Please know that your participation in completing this survey could potentially contribute to the field of physical education and physical activity opportunities because you would be sharing the factors that influence the implementation of your physical activity programs with others! More importantly, should you be willing to participate in the study, sharing your knowledge and perspective helps me to understand your professional opinion of the physical activity opportunities and programs available in the field of physical education.

If you have any questions, please don't hesitate to contact me (catherine.berei@unco.edu; xxx-xxx-xxxx).

Thank you for your time and consideration in completing my survey to better understand what school-based professionals such as yourself believe about physical activity opportunities in physical education and K-12 school settings.

Sincerely,

Catherine Berei
Doctoral Student
University of Northern Colorado

APPENDIX B
INITIAL SURVEY INFORMED CONSENT

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Describing and Understanding Factors Related to Implementing Comprehensive School Physical Activity Programs by Physical Educators

Researcher: Catherine Berei, M.Ed., School of Sport and Exercise Science

Research Advisors: Mark Smith, Ph.D., School of Sport and Exercise Science
Melissa Parker, Ph.D., School of Sport and Exercise Science

Phone: xxx-xxx-xxxx; 970-351-1736

E-mail: catherine.berei@unco.edu; mark.smith@unco.edu;
missy.parker@ul.ie

Hello! My name is Catherine Berei and I am a physical education teacher education doctoral student at the University of Northern Colorado. My research focus is physical activity programs for children and adolescents in a school and community settings. I would like to solicit your help in determining the perspectives and factors associated with the implementation of physical activity programs by physical educators. Specifically I am interested in knowing physical educators' knowledge of physical activity programs, their perspectives related to comprehensive school physical activity programs and the role of the physical educator as the director of physical activity, and factors that influence the implementation of the physical activity programs offered by physical educators in K-12 school and community settings.

The purpose of the survey is to solicit physical educators who may be willing to participate in a research study examining the perspectives of physical educators and the factors related to the implementation of comprehensive school physical activity programs by physical educators.

If you choose to participate in this survey, you will be asked to complete a questionnaire, which will take approximately 5 minutes. The survey contains questions regarding demographic information, the implementation of physical activity programs, and your willingness to continue further with the study. This is not a test; there are no "right" or "wrong" answers. So, just answer as honestly and thoroughly as you can. Your answers will not be shared with anyone other than the researchers, and all information will be kept confidential. Your name will not be attached to your answers and therefore you are anonymous in your responses to our questions, unless you are willing to continue further with the study and provide your contact information. The information you provide will be saved on private, secure computer storage devices to which only the researcher will have access. One hard copy of the information will remain with the researchers and be kept in their locked offices on the UNC campus.

Risks of participation are minimal. You may experience some emotions related to the questions and your answers about physical activity opportunities and programs. Nonparticipation, or withdrawal from the study, will not affect your job status or standing within any organization associated with distribution of this survey opportunity. Benefits of your participation include the potential to contribute to the field of physical education as it relates to physical activity opportunities, and a better understanding of how and why physical activity opportunities are provided by physical educators. Upon request, the study findings will be provided to you so you might learn from the findings if interested.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please click "Yes" below if you would like to participate in this research. Please feel free to print a copy of this letter to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

APPENDIX C

INITIAL SURVEY QUESTIONS

INITIAL SURVEY QUESTIONS

- 1) Please indicate the level of physical education you currently teach:
 - a. K-5
 - b. K-8
 - c. 6-8
 - d. 9-12
 - e. K-12
 - f. 8-12
 - g. Other:
- 2) Please indicate your teaching experience (in years):
 - a. 1-3
 - b. 4 or more
- 3) Please provide the name of the city/town/location for the school at which you teach:
- 4) Do you provide physical activity opportunities outside of physical education class?
 - a. Yes
 - b. No

(If “yes” is answered in question 4, participants will continue with the survey. If “no” is answered in question 4, participants will be directed to question 6.)

- 5) What types of physical education opportunities (outside of physical education) do you provide? (please check all that apply and provide a brief description)
 - a. For students during the school day:
 - b. For faculty/staff during the school day:
 - c. Before school (for students and/or faculty/staff):
 - d. After school (for students and/or faculty/staff):
 - e. Within the community:
 - f. Within the community with an emphasis on family involvement:
 - g. Other:
- 6) Would you be willing to participate in an interview (lasting approximately one to one-and-a-half hours) and share artifacts/documents (if appropriate) related to your perspectives of physical activity programs and the factors related to physical activity opportunities within your school and community?
 - a. Yes
 - b. No

(If “yes” is answered in question 6, participants will continue with the survey. If “no” is answered in question 6, participants will be directed to a thank you page and the survey will be complete.)

- 7) Thank you for your willingness to continue further with the research study. Please provide the following contact information for the researcher:
- a. Name
 - b. School Name
 - c. School Address
 - d. Email address
 - e. Phone number

Thank you page

APPENDIX D

CONTACT TO SELECTED PARTICIPANTS

SUBJECT: Physical Activity Research Interview

Dear (name of physical educator/selected participant),

My name is Catherine Berei and I am a physical education teacher education doctoral student at the University of Northern Colorado. Thank you very much for completing the initial survey for my research! You expressed a willingness to continue as a participant in my study, and I greatly appreciate your time and effort in exploring the perspectives of physical educators and factors related to the implementation of school physical activity programs by physical educators such as yourself.

I would like to schedule a date and time for an interview, and a chance to discuss your knowledge of physical activity programs, your perspectives related to school physical activity programs and the role of the physical educator as the director of physical activity, and the factors that influence the implementation of the physical activity programs you offer in your school and community.

The interview will last approximately one to one-and-a-half hours. During the meeting, I would also like to discuss, collect or copy any artifacts or documents you may have related to your physical education program and any physical activity programs you offer. These could be ways in which you communicate with students and parents (websites, bulletin boards, flyers), written descriptions of the physical activity programs you offer, or evidence of program success and effectiveness (emails, letters from participants/parents/administration). These are just a few examples, and the documents are not limited to the suggestions above.

I will travel to meet you at a site most convenient for you. Each interview will be audio-recorded; therefore, the site should be a place that is as quiet as possible, and where we will experience the least interruption.

I have the following dates and times available:

(day, date, time)

(day, date, time)

(day, date, time)

Please complete the following information and contact me (either email or phone) as soon as possible to schedule our meeting:

Location: _____

Day: _____

Date: _____

Time: _____

My email address is: catherine.berei@unco.edu
My phone is: xxx-xxx-xxxx

I will follow-up with you to confirm the meeting information above. In the meantime, please feel free to contact me if you have any questions or concerns.

Thank you again for your willingness to participate! I look forward to meeting with you and learning more about the physical activity opportunities you provide in your school and community!

Sincerely,

Catherine Berei

APPENDIX E

FOLLOW-UP CONTACT TO SELECTED PARTICIPANTS

SUBJECT: Physical Activity Research Interview Confirmation

ATTACHMENTS: (1) CSPAP interview and artifact collection informed consent
(2) CSPAP semi-structured interview guide

Dear (name of physical educator/selected participant),

I am writing to confirm our scheduled interview:

Location: _____

Day: _____

Date: _____

Time: _____

Should any of this information be incorrect, or if any of the meeting information needs to be changed, please contact me as soon as possible.

My email address is: catherine.berei@unco.edu

My phone is: xxx-xxx-xxxx

There are two attachments with this email. First is the CSPAP interview and artifact collection informed consent. This document explains my research and information about your participation in this research study. I will review and explain this document in further detail during our meeting, but please feel free to review it ahead of time. Second is the CSPAP semi-structured interview guide. This document will give you an idea of the questions I am going to be asking during the interview. Please feel free to review it so you can be prepared with answers and information ahead of time.

During the meeting, I would also like to discuss, collect or copy any artifacts or documents you may have related to your physical education and any physical activity programs you offer. These could be ways in which you communicate with students and parents (websites, bulletin boards, flyers), written descriptions of the physical activity programs you offer, or evidence of program success and effectiveness (emails, letters from participants/parents/administration). These are just a few examples, and the documents are not limited to the suggestions above. It would be very helpful if you could try to gather these artifacts and documents ahead of time.

Please feel free to contact me if you have any questions or concerns.

Sincerely,

Catherine Berei

APPENDIX F

**COMPREHENSIVE SCHOOL PHYSICAL ACTIVITY PROGRAM
INTERVIEW AND ARTIFACT COLLECTION
INFORMED CONSENT**

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Describing and Understanding Factors Related to Implementing Comprehensive School Physical Activity Programs by Physical Educators

Researcher: Catherine Berei, M.Ed., School of Sport and Exercise Science

Research Advisors: Mark Smith, Ph.D., School of Sport and Exercise Science
Melissa Parker, Ph.D., School of Sport and Exercise Science

Phone: xxx-xxx-xxxx; 970-351-1736

E-mail: catherine.berei@unco.edu; mark.smith@unco.edu;
missy.parker@ul.ie

My name is Catherine Berei and I am a physical education teacher education doctoral student at the University of Northern Colorado. My experiences as a professional in the field of teaching physical education, work on national committees, and my studies within my doctoral program have inspired me to research the perspectives of physical educators and factors related to implementing comprehensive school physical activity programs (CSPAP) by physical educators in school and community settings. I would like to solicit your help in determining the perspectives and factors related to the implementation of CSPAPs by physical educators. More specifically, I am interested in learning about physical educators' knowledge of physical activity programs, their perspectives related to CSPAPs and the role of the physical educator as the director of physical activity, and factors that influence the implementation of the physical activity programs offered by physical educators in K-12 school and community settings.

If you agree, you will be asked to: (a) participate in an interview that will last approximately one to one-and-a-half hours; and (b) gather and submit (scan or copy) artifacts and documents that support the physical education and any physical activity programs you implement in your school and community. It is hoped the interview will be completed at a location arranged with the researcher at some point in Spring 2014. The interviews will be audiotaped and transcribed verbatim.

A copy of the transcribed interviews will be sent for you to read and confirm the accuracy of the content; you also may request additions, deletions, or changes in this material. The review copies of the transcriptions will have the pseudonyms in place, and you will have the opportunity to check the pseudonyms and look for identifying data that may have been overlooked, as well as request changes if necessary. You will also have the opportunity to review the pseudonyms and aggregated data that will be used in place of identifying information in physical activity program artifacts and documents.

At the end of the project, I would be happy to share any data with you at your request. I will take every precaution in order to protect your anonymity. I will assign a pseudonym to you, schools, names of places, verbatim citations, unique physical education and physical activity programs, people, and any other identifying information. Only I will know the pseudonyms and when I report data, pseudonyms will be used for all identifying information. All identifying data collected and analyzed for this study, including the consent forms, audio recordings, verbatim transcriptions without pseudonyms, and artifacts/documents will be kept in a locked file cabinet in the research advisor's office and will be destroyed three years from completion of the study.

Due to the nature of your career and the steps that will be taken to maximize your confidentiality, I believe participation in this study poses no more than minimal risks, such as those encountered during typical participation in an interview/meeting. Researchers, however, cannot guarantee your anonymity. You should refrain from disclosing any information about your career path and physical education or physical activity programs that could be damaging to your financial standing, employability, or reputation to the researchers. You should carefully examine interview transcriptions and artifact/document data to ensure that any potentially identifying information has been replaced with pseudonyms or reported in the aggregate.

Your participation may allow for the understanding of the knowledge, perspectives and factors related to the implementation of physical activity programs by physical educators and their roles as physical activity directors in K-12 school and community settings.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled or impact you in any way. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

 Subject's Name

 Subject's Signature

 Date

 Researcher's Name

 Researcher's Signature

 Date

APPENDIX G

COMPREHENSIVE SCHOOL PHYSICAL ACTIVITY PROGRAM
SEMI-STRUCTURED INTERVIEW GUIDE

COMPREHENSIVE SCHOOL PHYSICAL ACTIVITY PROGRAM INTERVIEW GUIDE

Time of Interview: _____ **Date:** _____ **Location:** _____

Interviewer: _____

Interviewee: _____

Pseudonym for research study: _____

Years of Teaching Experience: _____

Level of Teaching (elementary, middle, high school): _____

School City/Town/Location: _____

Additional Relevant Information: _____

Introduction:

Hello! My name is Cathy Berei and I am enrolled in a doctoral program in Sport Pedagogy at the University of Northern Colorado. One of my degree requirements is to demonstrate my ability to conduct research in the form of a dissertation. My study is a phenomenology, which means I am interested in studying a phenomenon that exists within a group of physical educators that relates to the factors related to the implementation of school physical activity programs. I am also interested in learning the influences, guideposts and roadblocks encountered when effectively and successfully attempting to implement one or more components of a comprehensive school physical activity program. My questions today revolve around learning about your experiences related to school physical activity programs, and I am hoping you may be able to share your knowledge, thoughts, strategies, and concerns as we go along.

Distribute and explain the informed consent.

- Have the participant sign the informed consent
- Provide the participant with an additional copy of the informed consent for their records

Potential Questions:

Tell me about your physical education program?

- What types of activities do you teach?
- Do you have a specific focus or philosophy? If so, what is it?
- How much do you see your students?
- Does your district/school have specific requirements for the amount of physical education students must receive/complete on a daily/weekly/yearly basis? Can you explain these requirements?
- How many PE teachers are within your PE department?

Do you offer physical activity opportunities outside of physical education (behavior)?

- If no, what are some things that you think, feel, or have going on that are barriers, or make it difficult, or stop you from offering these programs?
 - Are there any reasons based on equipment/facilities (environmental) as to why you do not offer these programs? Why/why not? Please explain further.
 - Are there any reasons related to the school staff/administration/faculty (environmental) as to why you do not offer these programs?
 - Are there any other internal (things from within the individual/cognitive or personal) barriers that may make it difficult to implement these programs? Please explain or describe further.
 - Are there any other external (things outside of the individual) barriers that may make it difficult to implement these programs? Please explain or describe further.
 - Does your district/school have specific requirements for the amount of physical activity students receive on a daily/weekly/yearly basis?
 - Can you explain these requirements?
 - Do you think they play a role in offering these programs? Why or why not?
 - Are there any things or strategies that would help you overcome these barriers? If so, what do you think they are? Please explain or describe further.
- If yes, tell me about the physical activity opportunities (outside of physical education) you implement within your school or community? (each question below may be asked for each program offered, depending upon how many different/specific programs are offered)
 - (behavior) Describe/explain the program(s).
 - What are the physical activities offered?
 - What is the purpose of the program?
 - When is the program offered? Per day / week / month / year?
 - How much are they offered / how long do they last?
 - Who is invited to participate / Who is your intended audience?
 - Do you coordinate and implement/supervise the program?
 - Do you recruit others to help you implement the program?

- Do you recruit others to implement/supervise the entire program?
 - Do you train others?
- How much time do you spend planning or preparing for these programs?
- How much time do you spend implementing (actually supervising) these programs?
- Are there specific reasons as to why you offer these programs? (Why/why not? Would you explain further? Please describe what you mean.)
- Are there specific guideposts (things that help implementation)? (Why/why not? Would you explain further? Please describe what you mean.)
 - Are there any specific guideposts with administration/faculty/staff (environmental) that help implementing these programs?
 - Are there any specific guideposts with the environment/facilities/space (environmental) that help implementing these programs?
 - Are there any specific guideposts related to guidelines or policy (written information) that help implementing these programs?
- Are there specific roadblocks (things that hinder implementation)? (Why/why not? Would you explain further? Please describe what you mean.)
 - Are there any specific roadblocks with administration/faculty/staff (environmental) that hinder implementing these programs?
 - Are there any specific roadblocks with the environment/facilities/space (environmental) that hinder implementing these programs?
 - Are there any specific roadblocks related to guidelines or policy (written information) that hinder implementing these programs?
- Does your district/school have specific requirements for the amount of physical activity students receive on a daily/weekly/yearly basis?
 - Can you explain these requirements?
 - If yes, do you think they play a role in the programs you offer? Why or why not?
- (cognitive/personal prompt) Do you consider yourself the “physical activity expert” in the school setting? Why or why not?
- (environmental prompt) Are you compensated or rewarded with any external rewards for offering these PA program(s) (time from other teaching responsibilities, monetary/stipend) and if so, can you describe these rewards?
- Are there specific strategies you use to help you implement these programs successfully and effectively? (Would you explain further? Please describe what you mean.)
- Are there specific strategies you use to create awareness about the program(s)? (Would you explain further? Please describe what you mean.)
- Do you collaborate with other faculty (within the same school or district) to implement the program(s)? (Would you explain further? Please describe what you mean.)
- Do you have any training related to implementing the PA program(s)?

- (prompt) Training outside of PETE program, such as at conventions, workshops provided by national/regional/state organizations, district/school professional development opportunities?
- Would you consider implementing additional PA programs within your school or community?
 - Why or why not?
 - How would you go about accomplishing this?

Have you heard of the comprehensive school physical activity program? If so, what have you learned about it?

- Where did you learn about this information?
- Would you like to learn more?
- How would you go about learning more?

Have you heard of the “physical activity director” or “physical activity leader”?

- If yes, what have you heard about it?
 - What are your thoughts about physical educators fulfilling this role?
 - What are your concerns about physical educators fulfilling this role?
 - Would you be willing to fulfill this role? Why or why not?
 - Where did you learn about this information?
 - Would you like to learn more?
 - How would you go about learning more?
 - What information would be useful to you in order to help you be the physical activity director of your school/within your community?
- If no, what do you think it is?
 - Would you like to learn more?
 - How would you go about learning more?

Is there anything else you would like to tell me or that would be of use to me related to comprehensive school physical activity programs?

Closing:

- Thank you for participating in this interview
- Written results will use your pseudonym only to increase confidentiality of your responses
- I will be typing out our conversation today and creating what’s called a “transcript”
- I will send the word document (transcription) to you via e-mail. I ask that you read over it for accuracy. Please note any changes needed – I want it to be an accurate account of our time together today
- You can send me written feedback via email

- I may have a few follow up questions, would you be willing to meet with me, either via phone or in person, for a second interview?

APPENDIX H

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

UNIVERSITY of
NORTHERN COLORADO



Institutional Review Board

DATE: March 11, 2014

TO: Catherine Berei, M.Ed.
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [578454-1] Describing and Understanding Factors Related to Implementing Comprehensive School Physical Activity Programs by Physical Educators
SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: March 10, 2014

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Cathy -

Hello and thank you for your clear and thorough IRB application. Please be sure that your consent forms are on UNC letterhead when you use them in your data collection.

Best wishes with your research. Don't hesitate to contact me with any IRB-related questions or concerns.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

APPENDIX I

**FIRST AND SECOND MEMBER CHECK EMAIL
TO PARTICIPANTS**

SUBJECT: Physical Activity Research Interview Transcription

ATTACHMENTS: (1) Interview transcript specific to each participant

Hi (name of physical educator/selected participant),

Once again, thank you very much for taking time out of your busy schedule to meet and talk with me about your physical education and/or physical activity programs! I really enjoyed hearing about the wonderful opportunities you offer students, faculty, staff, families, and community members in your school and community.

Attached please find the transcription of our interview. Please review it carefully and make note of the following:

- Any changes you would like to make to the interview content
- Any information you would like add
- Any information you would like to delete
- Any names or identifying information that has not been replaced with a pseudonym or a vague description

When finished reviewing the transcription, please contact me (either email or phone) and let me know of any changes you may have. Please also contact me if you have no changes so I know that you are satisfied with the transcription and interview information as it is.

If you have not already given or sent me any artifacts and documents related to your PE or PA programs, please feel free to send those to me still.

Please note that my email address has changed to cberei@uidaho.edu. I have included that email address on this email, and please respond to that address.

Please feel free to contact me if you have further questions or concerns.

Sincerely,

Cathy Berei
xxx-xxx-xxxx

PLEASE NOTE new email address: cberei@uidaho.edu

Catherine P. Berei
Doctoral Candidate/Graduate Assistant
University of Northern Colorado
School of Sport and Exercise Science
Greeley, CO

APPENDIX J**THIRD MEMBER CHECK EMAIL TO PARTICIPANTS**

SUBJECT: Physical Activity Research Interview Transcription

ATTACHMENTS: (1) Interview transcript specific to each participant

Hi (name of physical educator/selected participant),

Once again, thank you very much for taking time out of your busy schedule to meet and talk with me about your physical education and/or physical activity programs! I really enjoyed hearing about the wonderful opportunities you offer students, faculty, staff, families, and community members in your school and community.

Attached please find the transcription of our interview. Please review it carefully and make note of the following:

- Any changes you would like to make to the interview content
- Any information you would like add
- Any information you would like to delete
- Any names or identifying information that has not been replaced with a pseudonym or a vague description

When finished reviewing the transcription, please contact me (either email or phone) and let me know of any changes you may have. Please also contact me if you have no changes so I know that you are satisfied with the transcription and interview information as it is.

If I do not hear back from you by Monday, November 3, 2014, I will assume that you are in agreement and satisfied with the attached transcript as is.

If you have not already given or sent me any artifacts and documents related to your PE or PA programs, please feel free to send those to me still.

Please note that my email address has changed to cberei@uidaho.edu. Please respond to that address.

Please feel free to contact me if you have further questions or concerns.

Sincerely,

Cathy Berei
xxx-xxx-xxxx

Catherine P. Berei
Doctoral Candidate
University of Northern Colorado
School of Sport and Exercise Science
Greeley, CO