PEER-REVIEWED

ELEMENTARY CLASSROOM TEACHERS' PERCEP-TIONS REGARDING THEIR DESIRE AND ABILITY TO TEACH PHYSICAL EDUCATION



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Abstract

The purpose of this study was to determine the perceptions of elementary school teachers regarding the value of elementary physical education (PE), and their desire and readiness to teach it effectively. An online survey was administered to elementary school classroom teachers in two large Southern California public school districts. Results suggest elementary classroom teachers value daily structured physical activity for children and most perceived themselves to be qualified to effectively teach elementary PE. Only 57% indicated that their university teacher education program adequately prepared them to effectively teach elementary PE, and 59% indicated they felt competent to administer the state mandated Fitnessgram. Findings suggest university accrediting agencies should require university teacher credential programs to provide at least one required elementary physical education teaching methods course, and school districts should provide continuous in-service training for elementary school classroom teachers who teach physical education.

Introduction

n most states, elementary classroom teachers are permitted or even required to provide the physical education (PE) instruction for their students (SHAPE America, American Heart Association & Voices for Healthy Kids, 2016). While most classroom teachers believe in the educational value of physical education, they often feel lacking in professional preparation, and many hold negative views of their own PE experiences as school pupils and as pre-service teachers (Webster et al., 2015; Chroninin & O'Sullivan, 2016).

Many elementary teacher certification programs do not adequately prepare pre-ser-

vice teachers to teach PE (Fletcher, 2012). This occurs because there is less emphasis on PE content than other academic content areas, and little training in PE teaching methodology is provided. Elementary physical education teacher education (PETE) may be limited to as little as eight to twelve hours of instruction in a general teacher training program (Fletcher & Mandigo, 2012; Hardman, 2008). Humphries and Ashy (2002) found in a survey of 134 elementary classroom teachers that approximately 30% were not required to complete a teaching methods course in PE and almost 20% of their undergraduate institutions did not even offer such a course for elementary education majors. This is unfortunate because beginning teachers are not adequately

prepared to teach PE. Their students most likely will not be provided with basic movement skill instruction which is cornerstone to a successful lifelong mover (Webster et al., 2015). Those children are more likely to develop sedentary lifestyles and, consequently, have an increased incidence of hypokinetic related diseases later in life, including coronary heart disease, diabetes, obesity, and lower back pain (Britt, 2019).

istorically, classroom teachers have had generally negative attitudes toward PE and PE teaching (Faucette, Nugent, Sallis, & McKenzie, 2002; Faucette & Patterson, 1989). While some researchers have found a generally positive recent shift in teacher attitudes toward PE in the 2000s (Barney & Deutsch, 2009; Morgan & Hansen, 2008a &b), others have cited mixed attitudes with some viewing it as valuable and others not (Linker & Woods, 2018). Elementary class-

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room teachers who view PE negatively often cite negative physical activity and sporting experiences as school pupils, and inadequate pre-service PETE as barriers to their desire and ability to provide a quality PE program (Chroninin, & O'Sullivan, 2016; Fletcher, Mandigo, & Kosnik. 2012;). Others have indicated they give PE a lack of priority given the responsibility to teach multiple subjects

and their low level of confidence to teach it adequately (Webster et al., 2015).

ome states, such as California, require a minimum number of minutes of instruction in PE (Shape America, 2010). However, in California there is no requirement that instruction be provided by a credentialed PE specialist. Consequently, most students in California do not have a credentialed PE instructor until they reach the 6th or 7th grade. While elementary classroom teachers typically have minimal training in PE subject matter, they are expected to prepare their students to achieve passing scores in the California Physical Fitness Test and to meet the State Standard competencies for Physical Education. The national association has addressed the issue of insuring quality elementary PE instruction by providing specific program guidelines (NASPE, 2007), however no study has utilized the criteria of the NASPE guidelines to determine the perceived readiness of elementary school classroom teachers to effectively teach physical education.

Purpose of Study

iven that many elementary classroom teachers are required to teach PE during their careers, and the recent call to increase schoolwide PA, it is important to consider classroom teacher's perceptions about teaching PE. This is important because their beliefs may strongly influence their attitudes and judgments, and ultimately affect their teaching performance. Specifically, their affinity or lack of desire to teach physical education undoubtedly impacts the quality of their PE lessons (Linker & Woods, 2018). Thus, it appeared important to determine

> the perceptions of elteach it effectively.

ementary school teachers regarding the value of elementary PE and their desire and readiness to

Methods

participants of this study were elementary school classroom teachers in Southern California. An on-line survey was utilized. This survey was adapted from

a previously validated NASPE PE teacher evaluation instrument, The Physical Education Teacher Evaluation Tool (NASPE, 2007). A total of 23 items were initially created by NASPE within a total of five categories (constructs) that are considered essential to effective teaching of physical education: 1) instructional skills, 2) evidence of student learning, 3) management/organization, 4) learning climate, and 5) professionalism. Using a Likert scale (1-5), respondents rated their competence for each of the 23 survey items. In addition, the survey included a demographic section, questions regarding how valuable they believe PE is for their students, their level of commitment to teach physical education, and an openended section in which teachers could comment about their past teaching experiences in physical education. Content validity was evaluated by a panel of 30 K-12 PE teachers who compared

the 23 survey items with The Physical Education Teacher Evaluation Tool (NASPE, 2007). The panel also provided editing suggestions to enhance clarity. The survey was then tested for reliability by having the same panel of 30 complete the survey twice, four weeks apart. Correlations of at least .85 were found for all survey items.

he survey was posted on a Qualtrics site. Participants were initially identified through a stratified sample of schools in two large Southern California public school districts. The University IRB was contacted and permission was granted to conduct the study. Once the schools were identified, names of potential respondents were found by accessing school websites. Approximately 300 potential participants received an email explaining the purpose of the study along with a link to the survey. It is also possible potential participants could have forwarded the questionnaire link to a classroom teacher who was not initially identified as a potential participant. A total of 193 teachers agreed to participate in the study. Participants were required to complete an Informed Consent form prior to filling out the questionnaire. Data were analyzed using descriptive statistics, as well as tests of comparison to determine differences in responses by gender.



Results

Atotal of 193 elementary classroom teachers with an average of approximately 15 years of teaching experience completed the on-line survey. The majority of the respondents were female (72.5%) and approximately 70% reported being responsible for teaching PE to their classes. Approximately 88% reported they are either moderately or highly physically active (See Table 1).

n Table 2, means and standard deviations are reported in the left column for each of the 23 perception question items. In addition, the 5-point Likert scale was compressed into three categories: (1 & 2) Strongly and moderately agree, (3) Undecided, and (4 & 5) Moderately and strongly disagree, with both N and percentages provided in the right three columns.

Discussion

he results strongly suggest elementary classroom teachers value daily structured physical activity for elementary school aged children. In addition, over 70% of the respondents indicated they had a satisfactory knowledge of the California State Standards for Physical Education, can teach fitness concepts, can explain and model team sports skills, can use effective classroom management strategies, and can motivate students to be physically active outside of class time. Most of the elementary school teachers perceived themselves to be qualified to teach elementary physical education. However, just because most indicated they feel competent to teach PE, it doesn't necessarily mean they want to do it (Linker & Woods, 2018).

Just 57% of the respondents felt their University Teacher Education Program (TEP) adequately prepared them to effectively teach elementary PE. These findings are consistent with Fletcher (2012), Hardman (2008), and Humphries and Ashy (2002) who all documented the inadequacies of university teacher education programs in preparing elementary classroom teachers to teach physical education. While 88% of the teachers viewed PE as an important subject, there was a wide range in how effectively they felt they could perform various duties of a PE instructor (e.g., 84% manage disruptive behavior, 77% teach fitness concepts, and 62% assess and give feedback regarding motor skills). The

Table 1: Demographic Data

Gender

Females 72.5% (140) Males 26% (50) No indication 1.5% (3)

Average years of certified teaching experience

14.7 years

Grades currently taught

K-3 45.3% (86)

4-6 54.7% (104)

Current perceived level of respondent's physical activity

Low 12.5% (24)

Moderate 61.5% (118)

High 26.0% (50)

Status regarding elementary school physical education teaching

69.7% (131) Currently responsible for teaching elementary PE to their class

18.1% (34) Have taught elementary PE to their class in the past, but not currently

12.2% (23) Have never taught elementary PE

Table 2: Elementary Classroom Teacher's Perceptions Regarding Their Ability to Teach PE

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Items (with means & S. D.)	Strongly or Moderately Agree Undecided			Strongly or Moderately Disagree		
	% N	%	N	%	N	
PE is an important elementary subject 4.48 (0.82)	88.1 (177)	7.5	(15)	4.5	(9)	
Most students enjoy participating in my PE lessons 4.29 (0.85)	86.1 (174)	9.9	(20)	4.0	(8)	
I can effectively manage disruptive behavior in PE 4.19 (0.95)	84.2 (169	8.9	(18)	6.9	(14)	
I am able to create a physically safe environment in PE 4.14 (0.93)	81.2 (164)	12.4	(25)	6.4	(13)	
I can teach fitness concepts to children 4.12 (0.93)	77.1 (155)	17.4	(35)	5.5	(11)	
I am able to motivate students to support the learning of others during PE 4.02 (0.94)	76.6 (154)	15.4	(31)	8.0	(16)	
Elem. children should participate in PE at least 200 Minutes every 10 school days 4.21 (1.16)	76.3 (154)	12.1	(24)	11.6	(23)	
I am able to promote lifelong physical activity and skillful movement in my PE lessons 4.02 (0.97)	76.2 (154)	14.4	(29)	9.4	(19)	
I can explain and model team sports skills 3.97 (1.10)	75.5 (151)	11.0	(22)	13.5	(27)	
I model a healthy and physically active lifestyle 4.03 (0.95)	74.3 (150)	18.3	(37)	7.4	(15)	
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Table 2: Continued

Items (with means & S. D.)	Strongly Moderat Agree	ely	Undecided		Strongly or Moderately Disagree	
	% N	%	N	%	N	
I desire to teach PE to my students 4.06 (1.06)	73.6 (14	8) 18.4	(37)	8.0	(16)	
I can teach class procedures for relocation, equipment collection and distribution, & other management in PE 4.02 (1.02)	73.3 (14	8) 20.3	(41)	6.4	(13)	
I have a satisfactory knowledge of elementary PE curriculum 3.90 (1.05)	73.1 (114	ł) 15.9	(40)	10.9	(46)	
I can motivate and guide students to be physically active outside of school 3.96 (0.99)	72.6 (14	6) 18.9	(37)	8.5	(17)	
I have a satisfactory knowledge of CA PE Standards 3.87 (1.09)	70.5 (14	1) 16.5	(33)	13.0	(26)	
I can adjust difficulty of skills and games so students can be successful & sufficiently challenged 3.78 (1.05)	69.3 (14	0) 16.8	(34)	13.9	(28)	
I can make accommodations in my PE lessons so students with physical and mental limitations can experience success 3.76 (1.11)	66.8 (13	3) 20.1	(40)	13.1	(26)	
I am able to collaborate with community, colleagues, staff, & resource persons to plan appropriate PE content 3.77 (1.20)	64.9 (13	1) 20.3	(41)	14.9	(30)*	
I am able to give accurate feedback & assess motor skills of students 3.69 (1.11)	62.2 (12	5) 21.4	(43)	16.4	(33)	
I am able to correctly administer the FITNESSGRAM 3.71 (1.28)	59.4 (117	7) 23.4	(46)	17.3	(34)	
I can integrate other subjects into PE lessons 3.59 (1.14)	59.0 (118	3) 23.5	(47)	17.5	(35)	
My University TEP adequately prepared me to effectively teach elementary PE 3.47 (1.19)	57.0 (114	·) 20.0	(40)	23.0	(46)	
I can utilize various forms of technology to track physical activity in PE (e.g., heart rate monitors, pedometers). 3.26 (1.35)	47.0 (94) 23.0	(46)	30.0	(60)*	

^{*} Significant differences in means, male > female, p <.05

lowest percentages of strong to moderate agreement were for items related to giving the Fitnessgram test, integrating other subjects into PE lessons, and utilizing various forms of technology to track physical activity. These skills need to be stressed more directly in TEP program courses as well as in district in-service sessions. Studies have shown that classroom teachers, with training and regular assistance from subject matter specialists, can improve their PE lessons substantially (Goh et al., 2014; Fletcher, Mandigo, & Kosnik, 2013). These findings underscore the importance of providing classroom teachers with extensive training and support so students receive better PE instruction when PE specialists are not provided.

t is concerning that approximately 40 percent of the respondents did not perceive themselves to be sufficiently competent to administer the Fitnessgram. Teachers who feel inadequate when administering the Fitnessgram are unlikely to be able to provide meaningful mentoring to their students on how to improve their fitness levels (Leirhaug & MacPhail, 2015).

V compare the 5-point Likert scale mean responses for gender for the 23 perception items, significant differences were found for just two items, with male means significantly greater for: 1) I am able to collaborate with community, colleagues, staff, and resource persons to plan appropriate PE content and 2) I can utilize various forms of technology to track physical activity in PE (e.g., heart rate monitors, pedometers). These findings suggest male elementary school classroom teachers may have an edge over females both in networking and in utilizing technology as relates to teaching physical education. In-service education should be provided to narrow this gap for female elementary classroom teachers.

Recommendations

First elementary school administrators should make a strong commitment to providing quality daily physical education in order to increase PA levels for children given the immediate and long-term cognitive benefits that are derived. Ratey (2007) and others have documented the positive impact of vigorous activity on information processing and overall mental health. Second, university accrediting agencies should require university teacher credential programs



to provide at least one required elementary PE teaching methods course taught by a PETE faculty member, which includes a field experience that requires practice teaching lessons to elementary school children. Third, school districts should offer continuous in-service training for classroom teachers who teach PE so they will be well informed of appropriate curriculum, ways to integrate other subject areas (i.e., physical activity breaks), and how to properly administer and report the Fitnessgram (McMullen, Kulinna & Cothran, 2014). Fourth, school districts should seek to hire additional elementary PE specialists given the early years have been identified as critical learning periods for motor skills and developing a physically active lifestyle (Myer et al., 2015). Fifth, recess and afterschool programs should be developed to encourage students to be more physically active during the school day (Barnas, Wunder, & Ball, 2018). Sixth, schools should seek to publicize community sport and recreation programs in order to promote student participation in PA during non-school hours. Hopefully, as the benefits of daily physical activity become better known, there will be an increase in support for quality PE in elementary schools (Dauenhauer & Keating, 2011).

Lassroom teachers, which would allow for follow-up questions to identify and address specific barriers to providing quality PE. Additional questions could include whether they have the proper and adequate amount of PE equipment, and sufficient time during the school day to prepare for and provide quality PE activities. It would be helpful to determine the correlation between teacher age and comfort with education technology. It also seems important to further probe the impact of completing a full PE methodology course in a university teacher preparation program on perceived confidence to teach elementary PE.

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