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Exploring Physical Educators' Efficacy Beliefs, Perceptions of Importance and Openness for Social and Emotional Learning

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EXPLORING PHYSICAL EDUCATORS' EFFICACY
BELIEFS, PERCEPTIONS OF IMPORTANCE AND
OPENNESS FOR SOCIAL AND EMOTIONAL
LEARNING

by

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Abstract

In response to changes in student performance and behavior, social and emotional learning (SEL) has received increasing attention and interest in education (Bartlett, 2019). Physical education (PE) has also given increased attention to implementing SEL in physical activity spaces (Richards et al., 2019). Thus, it is important to evaluate teachers' beliefs about SEL in order to understand their willingness to implement this curriculum effectively. The purpose of this study was to evaluate the relationships of several environmental and personal perceptions about teaching on PE teachers' beliefs for implementing SEL. Physical educators (N = 157; 49.7% male) from the United States participated in this study. Teachers reported lack of training on SEL as the largest barrier to implementing SEL in PE. MANOVA analysis showed suburban teachers reported higher perceived culture for implementing SEL, while urban teachers reported greater levels of importance.

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Chapter 1: Introduction

Social and emotional learning (SEL) is receiving increased attention in education (Bartlett, 2019), as schools strive to educate the “whole child” (Durlak et al., 2011) and address newly emerging behavioral challenges with students in K-12 schools. SEL has been defined as “the process through which individuals learn and apply a set of social, emotional, behavioral, and character skills required to succeed in schooling, the workplace, relationships, and citizenship,” (Jones et al., 2017, p.12). According to the Collaborative for Academic, Social and Emotional Learning (CASEL, 2013), SEL includes five core competencies: self-management, self-awareness, social awareness, relationship skills, and responsible decision making. Research has shown that use of these competencies can improve students’ academic test scores, reduce behavior issues, cultivate positive interactions, and decrease anxiety and depression (Brackett et al., 2012b; Durlak et al., 2011; Greenberg et al., 2003). Despite this, little research exists around teachers’ ability to understand SEL competencies and the degree to which they feel prepared to teach them effectively (Graczyk et al., 2006).

Little research exists to understand teachers’ abilities to implement SEL exists in most school subjects including Physical Education (PE). PE curriculum theorists, however, suggest that standards and curricula have addressed SEL goals for several years (SHAPE, 2013). For example, Dyson, Howley, & Wright (2020) argue that PE has been teaching SEL skills using instructional models like Teaching Personal and Social Responsibility (TPSR; Hellison, 2011), the Sport Education Model (SEM; Siedentop, 1998), Cooperative Learning (CL; Dyson & Casey, 2012), and outdoor/adventure education (OAE; Sutherland & Legge, 2016). Yet, there is little evidence of how well

SEL is taught or the quality of SEL implementation within these models or PE curriculum. Recent expansion of SEL's core competencies has elicited questions regarding how models-based practices promote the spectrum of SEL skills and abilities, or only continue to target a narrow few.

It is important to note that regardless of the curriculum and instructional model employed, teacher beliefs, attitudes, goals, and perceived efficacy for teaching their subject all inform instructional decision making (Chen, 2021; Guskey, 1988). Thus, it seems necessary to study PE teachers' beliefs and abilities to implement SEL not only due to the increased importance for student outcomes at the school level, but because PE has continuously been viewed as an effective medium to teach affective skills and SEL beliefs and abilities.

SEL and PE

PE standards and curriculum have emphasized a variety of affective learning outcomes including personal and social responsibility behaviors (Dyson et al., 2020; Hellison, 2011). Evidence of this can be seen in the inclusion of SEL language within the Society of Health and Physical Educators (SHAPE) National Standard 4 which states: "the physically literate individual exhibits responsible personal and social behavior that respects self and others" and Standard 5, "the physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction" (SHAPE, 2013). Standard 4 is aligned with four of the five core SEL competencies: responsible decision-making, self-awareness, self-management, and social awareness. Standard 5 emphasizes the opportunity to work on relationship skills through

social interactions in physical activity. These standards provide a clear avenue through which to implement and evaluate SEL in PE.

The TPSR (Hellison, 2011) and SEM (Siedentop, 1998) curriculum models provide students leadership opportunities to exhibit several SEL indicators in sport and PA settings. However, only recently have teachers been embedding direct instruction in SEL within PE curriculum, suggesting that a more intentional and systematic approach needs to be a primary focus for training and research. Ciotto and Gagnon (2018) provided strategies for integrating each SEL competency into PE such as using a dance unit to develop students' social awareness by learning dances of different cultures. Richards et al. (2019) outlined an approach to combining the Skill Theme Approach (Graham et al., 2013) with TPSR to teach elementary students SEL skills. These authors provide important examples of the intentional and purposeful teaching of SEL skills and argue that SEL instruction must be developmentally appropriate and taught progressively and sequentially, similar to the development of physical skills in PE.

SEM has been found to promote the application of SEL skills and behaviors through the use of student roles and modified competition (Ang & Penney, 2013). Within this model students are assigned several non-playing responsibilities that support overall team goals, and accountability is crucial for team success in the season. For example, students can learn and be assessed on competencies, including sportpersonship, teamwork, and leadership skills. During competition, students are provided opportunities to utilize emotional self-regulation and effort and are held responsible for handling conflict using appropriate resolution. Although it is believed that these models are developing students' SEL skills, it is difficult to determine the extent to which their skills

improve, if at all, as the focus of the models is not on the acquisition of SEL skills. Therefore, it is necessary for the physical educator to intentionally implement and assess/evaluate the SEL skills and beliefs as a crucial part of the curriculum. It is important to note in these models, students are continuing to learn physical skills while simultaneously developing SEL skills. Central to the effectiveness of this are the teacher's instructional decisions allowing for the opportunity to practice SEL skills within physical activity engagement. PE teachers have historically been reluctant to adopting new instructional models, especially when they have doubts about their effectiveness or their ability to implement them (Reeve et al., 2014). Reasons for limited adoption may include lack of pre-service training, lack of school-level support (Kern & Graber, 2018), and limited continued professional development (Kern et al., 2020). In summary teachers who do not feel competent in delivering evidence-based models or who do not value them will feel less efficacious in utilizing these approaches. Thus, PE teachers must believe in the importance of SEL for students' success to prioritize it in their classrooms and to teach the skills effectively and intentionally (Buchanan et al., 2009).

Chapter 2: Teacher SEL Beliefs: Knowledge, Attitude, Willingness

Teachers' beliefs about their pedagogical skills, content knowledge, and students can impact their teaching practices (Pajares, 1992). This includes their effectiveness in implementing SEL (Brackett et al., 2012a; Collie et al., 2012) as their attitudes can affect the adoption, sustainability, and impact of educational programs (Bowden et al., 2003; Gingiss, Gottlieb, & Brink, 1994; Parcel et al., 1995). In an effort to better understand general teacher efficacy for teaching SEL, Brackett et al. (2012a) developed a survey to measure teachers' beliefs about teaching SEL which included three key constructs: perceived comfort, competency, and culture. Perceived comfort refers to teachers' confidence in implementing a practice (Collie et al., 2015; Brackett et al., 2012a), while perceived competency refers to teachers' ability to improve teaching skills (Collie et al., 2015). Perceived culture refers to the teachers' perceptions of school support and promotion of SEL (Collie et al., 2015). These three core belief areas were suggested to measure a teacher's perceptions about their ability and environment for offering quality instruction on SEL.

According to Rorhbach, Graham, & Hansen (1993), teachers are more inclined to teach a program when they feel comfortable and excited. This comfort can lead to confidence and may be tied to teachers' attitudes toward program importance (Guskey, 1998). In short, teachers who are well trained are more likely to feel comfortable, and in turn, have more positive beliefs about a given topic or curricular approach. We offer that when introducing teachers to SEL, it is important to begin by obtaining an understanding of their comfort and knowledge with these skills and concepts. The same applies to teachers' competency to teaching SEL (Brackett et al., 2012a) as teachers' perceptions of

the importance and feasibility of SEL is critical to successful implementation. Teachers' competency to SEL programming can be impacted by attending trainings and professional development experiences. From a personal perspective, teachers' beliefs about teaching their subject interact with their perceptions of what SEL is and how it is linked to the curriculum they value. Likewise, teachers being inundated with SEL trainings may subsequently influence their perceptions, but their willingness to engage in those sessions is also dependent on their beliefs and goals for PE. In addition, teachers' competency is directly impacted by school staff and administrators support for SEL (Brackett et al., 2009; Devaney et al., 2006). This is interrelated with teachers' perceptions of their school culture. Principals play a crucial role in a school's culture (Hallinger & Heck, 1996; Patti & Tobin, 2006) and this can affect the adoption and sustainability of a program or initiative (Fullan, Miles, & Jacobson, 2009).

Limited resources and professional development opportunities continue to negatively impact teachers' beliefs about their ability to offer quality programs (Lounsbury et al., 2011). When evaluating school culture, it is important to include perceptions of available teaching resources and professional development opportunities. Put simply, teachers who feel SEL is important will likely hold positive beliefs about SEL content, SEL trainings, and be more likely to adapt their culture to address SEL in their school even if they are not currently effectively trained. However, it is also likely that this lack of professional development can lead to limited understanding or belief of SELs importance and make teachers susceptible to not engaging in trainings in a meaningful way, providing less than ideal SEL instruction, and feeling unable to assist with school culture pitfalls.

Teacher comfort with, and competency to, implementing SEL has been found to be associated with perceived accomplishment, enjoyment, overall efficacy, adaptive teaching beliefs, program effectiveness, and even job satisfaction (Bracket et al., 2012a; Collie et al., 2012). When school culture consists of a collective value and belief in the importance of SEL, research has indicated the presence of administrative support and reduced teacher emotional exhaustion (Brackett et al., 2012a). These results suggest that positive perceptions of practices, beliefs, and general attitudes towards including SEL in the classroom have resulted in teachers adapting their practices. While scholars have created and validated tools to measure teacher SEL beliefs, readiness, and knowledge, these tools have not yet been used to understand physical educators. In addition, little research exists on the personal and environmental factors impacting teacher beliefs, knowledge, and attitudes toward SEL implementation. For example, when given a new curriculum to implement, teachers may pursue it with good intentions (or not), based on their personal competency and beliefs around its outcomes. Further, lack of adequate training often hinders the success of new practices as teachers are given the “train-and-hope” approach and one-day professional development bouts (Stokes & Baer, 1977).

Contextual Influences on SEL Beliefs and Teaching

From a social-cognitive perspective, a teacher’s environment and previous socialization experiences have the most significant impact on held beliefs and capacities to reach an intended outcome (Bandura, 1997). Teachers’ efficacy beliefs represent cognitive perceptions of one’s ability to instruct, manage, and engage students in the learning environment (Tschannen-Moran et al., 1998). Additionally, teacher’s beliefs regarding their instructional abilities are often tied to their perceptions of their

environment and teaching circumstances. For example, elementary PE teachers report large class sizes and limited resources for their inability to offer quality programs (Lounsbery et al., 2011). Teachers' perceptions of their program are influenced by their perceived school climate, teaching beliefs and values (Collie et al., 2012). Perry and Rahim (2011) offer that teacher perceptions of school climate are integral in shaping the development of teacher beliefs and instructional decisions. In order to successfully implement SEL, teachers need consistent support (Payton et al., 2000), and feedback (CASEL, 2002) for continual growth and recognition. More research is needed to understand how teachers perceive factors in their working environment and how they influence their adoption of SEL curricular practices.

Additionally, socialization experiences may lead some to hold more custodial views of education and the teaching and learning process (Lawson, 1983b). Such beliefs and orientations may reflect the perception that SEL is minimally important compared to other content addressed in the education programs (Buchanan et al., 2009). This may be particularly relevant in PE where traditional curriculum teaching strategies and assessment practices dominate programs despite the development of more innovative approaches (Ennis, 2014). In the traditional sense, SEL competencies and other affective learning goals have often been seen as less important than psychomotor skills in the PE curriculum and have received a general lack of prioritization throughout the K-12 curriculum. It seems that teachers who were not socialized into teaching with a value for the importance of SEL or who hold more traditional beliefs about PE's purpose in school may be more resistant (intentionally or unintentionally) to valuing and instructing on SEL competencies.

Furthermore, for years research has shown that school context significantly influences teachers' curricular choices. Kantor and Brenzel (1992) found that there are major differences between urban and rural schools as urban schools receive less funding, possess greater cultural diversity of students, and are faced with significant discrepancies in students' learning-readiness skills. When making choices about curriculum in physical education, Ennis and Chen (1995) found that urban teachers placed higher priority on self-actualization and social responsibility value orientations, while rural teachers valued disciplinary mastery. This is likely due to urban teachers facing issues of outdated equipment and facilities as well as greater threats of violence and student-teacher confrontations (Kantor & Brenzel, 1992). Skaalvik and Skallvik (2011) found that teachers in more demanding environments with less resources and training were less likely to engage in continued professional development with many teachers finding their way out of the profession as a result of contextual difficulties. Taken together, the context a teacher inherits significantly influences their instruction, curriculum, professional beliefs, and professional growth. With regards to a teachers' perceived abilities and importance of SEL, there may likely be differences among teachers based on their teaching context (rural, urban, and suburban) and the difficulties/affordances linked to that context, which impacts their teaching priorities.

Physical education teachers' gender, and the socially constructed identity that accompanies that, may also play a role in their teaching beliefs and actions. In a study by Schnitzius et al. (2021), female PE teachers reported higher levels of extroversion and conscientiousness than male teachers (Rammstedt et al., 2018). These differences in personalities among genders in physical education teachers may lead to differences in

teaching decisions and strategies. Additionally, female physical educators reported higher scores on the SEA interest profile (Holland, 1966) in social and artistic, while male teachers showed greater interest in realistic and investigative tasks (Schnitzius et al., 2021). The dissimilarities of interests of male and female PE teachers may explain the disproportion of female physical educators in elementary schools (UNESCO Institute of Statistics, 2020), which favor teachers' social and artistic abilities. These results also suggest that female teachers may be more concerned with the personal and social development of students as compared to male teachers who seem to prioritize technical skill development. Additionally, female PE teachers also reported higher levels of educational interest (Schnitzius et al., 2021). This may lead to female teachers being more open to professional development. We speculate that physical educators' perceived importance of implementing something new, like SEL, may be influenced based on their gender and the personal traits they embody. At the time of this study, we are unaware of any research that has explored how PE teachers' gender and context may influence their uptake of SEL training and offerings in PE. This work is essential to understanding how researchers and teacher trainers may approach SEL training and interventions with in-service and pre-service physical educators.

Overall, as it pertains to PE teachers and SEL, it seems likely that a teacher's culture and context, previous experiences, and gender impact their perceived importance of SEL in their programs and the strength of their beliefs toward implementation.

Purpose

The purpose of this study was to evaluate the relationships of several environmental and personal perceptions about PE teachers' beliefs for implementing SEL. Research questions guiding this study were:

1. To what degree do teachers' report their perceived efficacy and barriers to implementing SEL?
2. Are there differences in teachers' SEL beliefs between different demographic variables (gender and teaching context)?

Chapter 3: Methods

This study employed an overall quantitative design in order to capture physical educators' beliefs about SEL. Participants for this study were certified physical educators from across the United States. The researchers sought to obtain a diverse participant pool including PE teachers from varying instructional levels, context (rural, suburban, urban), and from differing career stages.

Pilot Testing

To investigate the quality of the survey (developed for core teachers), a pilot study was conducted, and the survey was sent to approximately 35 current physical education teachers. Surveys that were completed 90% or more were kept. Thus, a total of 21 participants (M age = 36.52, SD = 9.99) were included in this pilot. These participants were 76% male, 43% taught at the secondary level, 48% taught in a rural context, and they self-reported predominantly as mid-career academics (M years of teaching = 10.98, SD = 9.04). The participants answered 7-items regarding their perceived barriers to implementing SEL using a 5-point Likert scale from (1) *strongly disagree* to (5) *strongly agree*. The results showed that the pilot participants reported “time available to teach the lessons” as a barrier with most selecting “agree” (68%) and “strongly agree” (16%). Additionally, they reported “personal skepticism regarding or disagreement with the philosophy of SEL” with “disagree” (32%) and “strongly disagree” (24%). All participants also completed the teacher self-efficacy to implement SEL tool (Brackett et al., 2009). This tool included measures of teachers' perceived comfort, competency, and culture for SEL in addition to their perceived importance and openness to SEL professional development. They reported above average levels of perceived

comfortability ($M = 3.643$) and similar levels of perceived competency ($M = 3.893$) to SEL and perceived culture ($M = 3.881$). Interestingly, the pilot participants reported the highest levels of perceived importance ($M = 4.175$) of SEL. Their perceived openness ($M = 2.488$) to SEL professional development was rated on a 3-point scale with response options of “no”, “I don’t know”, and “yes”. Given this survey has not previously been used with physical education teachers, a pilot study was conducted to explore teachers’ responses and to make changes if issues arose. Following the results, of the pilot study and the initial effectiveness of the measurement tool, a nationally representative sample was targeted.

Participants and Recruitment

Participants in this study were in-service physical educators ($N = 157$; 49.7% male) in K-12 schools from the Southeast (62.4%), Northwest (20.4%), Southwest (13.4%), Northeast (3.18%), and Midwest (1.9%) United States. Following institutional review board (IRB) approval, the primary researcher contacted teachers via email to inform them of the study, invite them to participate, and provided them with the link to an electronic survey. Snowball sampling was employed as the researcher asked participants to share the invitation with their colleagues and others who may be interested. Consent was obtained at the beginning of the online survey and participants were provided four weeks in which to complete the survey.

Teachers reported a mean age of 43.13 years old ($SD = 11.35$) and had been teaching an average of 15.64 years ($SD=9.91$). Participants reported as White (82.8%), Hispanic/Latino/Latin American (9.6%), African American/Black (4.5%), Native American (1.3%), and Multiracial (>1%). The teachers currently held a PE degree

(86.6%), state certification (94.9%), and held an advance degree (62.4%). Additionally, they reported as working in elementary (52.2%), secondary (39.6%), and both (8.2%) levels in urban (28.3%), suburban (42.8%), and rural (28.9%).

Measures

Demographics. Survey responses included demographic information, such as age, gender, and ethnicity. Teachers also self-reported their years of experience, certification, school context, instructional level, and regional location.

Teachers' SEL beliefs. Teachers' SEL efficacy beliefs included the measure of three subscales namely, comfortability, competency, and culture using the Teacher SEL Beliefs Scale (Brackett et al., 2012a). Each subscale consists of 4 items measured on a 5-point Likert scale ranging from (1) *strongly disagree* to (5) *strongly agree*. This tool was originally used with general academic teachers; therefore, the tool was adapted to specify the items for physical educators. For example, the following prompt was used for these items, "We understand that perceptions and implementations of social and emotional learning differ across teachers. Please answer to the best of your ability based on your experiences. Please read each statement and indicate how strongly you agree/disagree as it pertains to you as a Physical Education teacher in your teaching situation." Following the prompt example items included, "I am comfortable providing instruction on social and emotional skills to my students" and a culture example was, "The culture in my school supported the development of children's social and emotional skills." The Teacher SEL Beliefs Scale has previously been found valid and reliable with general academic teachers in the United States (Brackett et al., 2012a) with good internal consistency reliability as well (Comfort, $\alpha = .76$; Competency, $\alpha = .82$; and Culture, $\alpha = .74$).

Teachers' barriers. Items from Buchanan et al. (2009)'s survey was used to capture teachers' perceived barriers, for implementing SEL. Items were adapted for clarity based on feedback from our pilot study. For example, a barrier item in the original survey was "Time available to teach the lessons" and it was modified to "I have time available to teach SEL in my lessons." The barrier subscale included 7-items using a Likert scale from (1) *strongly disagree* to (5) *strongly agree*. Items were modified to include language for physical educators. For example, the original survey used "Do you think SEL programs should be taught in the classroom?" and our survey adapted it to include "Do you believe SEL programs should be taught in PE?"

Openness for SEL. As for the use of SEL programs, only one item was included in our survey, which was "Are you currently implementing an SEL program?" This subscale used three response choices of "no", "I don't know", and "yes". The openness subscale included 3-items with response options of "no", "I don't know", and "yes". An example of an openness item included "Would you be willing to receive a one-to-one consultation support or coaching in order to implement an SEL program?"

Perceived importance of SEL in PE. To measure participants' perceived importance of SEL, there were 3-items using a 5-point Likert scale with (1) *strongly disagree* to (5) *strongly agree*. An example of an importance item included, "Do you believe SEL programs should be taught in PE?"

Data Analysis

Data were screened for missing data, normality, and outliers. Only surveys that were 90% complete were used for the final analysis. Missing data for the remaining participants were accounted for using multiple imputation techniques (Graham & Hoffer,

2000), which is preferred compared to listwise and pairwise operations, following the procedures for the assumption that remaining missing data was missing at random. The multistep process included identifying the data was missing at random, replacing all missing values with a calculated estimate using the maximum likelihood estimation, and running multiple imputation models to identify the most plausible score (Little & Rubin, 2002). The imputation calculations are analyzed for each measurement construct individually and then all data is combined after the maximal score is calculated. Descriptive statistics, internal consistency estimates, and bivariate correlations were analyzed using SPSS version 26. To explore potential differences on teachers SEL efficacy beliefs, perceived importance, and openness for SEL, a series of multivariate analysis of variance (MANOVA) tests were used to evaluate potential differences based on teaching environments, gender, school context, instructional level, years of experience, and region.

Researchers identified specific differences based on gender, years of teaching, and school context and isolated those areas for specific evaluation. Gender was coded into two groups: female and male. Years of teaching were coded into five groups of similar group size (1 = 1-5 years; 2 = 6-10 years; 3 = 11-19 years; 4 = 20-25 years; 5 = 26+ years). School context was coded into three groups: urban, suburban, and rural. All MANOVA with significant interactions were followed by a post hoc examination using analysis of variance to identify where differences may have occurred (Tabachnick & Fidell, 2014). Overall, the Wilk's Lambda, F-statistic, p-value ($p < .05$), and power for each significant result was reported and was used to determine if and where statistical differences were found (Tabachnick & Fidell, 2013).

Chapter 4: Results

Preliminary Analysis

Participants first reported their perceived barriers to implementing SEL. They reported “time available to prep for teaching” as a highly perceived barrier with majority selecting “agree” (54.72%) and “strongly agree” (8.81%). Teachers also reported “time available to teach the lessons” as another major barrier with 59.12% “agreeing” and 10.06% “strongly agreeing”. Additionally, teachers reported their “current level of training regarding SEL” as a barrier with most agreeing (49.69%) and strongly agreeing (13.84%). Comparatively, they reported low perceptions of “personal skepticism regarding or disagreement with the philosophy of SEL” with most selecting “disagree” (45.22%) and “strongly disagree” (17.2%). All reported percentages for barriers to implementing SEL can be found in Table 1.

Table 1. Reported percentages for barriers to implementing SEL

Survey Item	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
<i>Time available to prep for teaching the lessons</i>	5.03% (0%)	19.5% (20%)	11.95% (12%)	54.72% (48%)	8.81% (20%)
<i>Time available to teach the lessons</i>	2.52% (0%)	19.5% (8%)	8.81% (8%)	59.12% (68%)	10.06% (16%)
<i>My current level of training regarding SEL</i>	1.89% (0%)	20.13% (36%)	14.47% (16%)	49.69% (40%)	13.84% (8%)
<i>Resources to purchase SEL curriculum</i>	15.09% (12%)	44.65% (20%)	19.5% (36%)	16.98% (24%)	3.77% (8%)
<i>Personal skepticism regarding or disagreement with the philosophy of SEL</i>	17.2% (24%)	45.22% (32%)	29.94% (36%)	7.01% (8%)	0.64% (0%)
<i>Prior negative experiences with implementing an SEL program</i>	19.75% (24%)	52.87% (36%)	22.29% (36%)	4.46% (4%)	0.64% (0%)
<i>The number of students in my classroom makes it difficult to implement SEL</i>	8.18% (12%)	43.4% (36%)	11.32% (12%)	21.38% (24%)	15.72% (16%)

Note: (#%) = Pilot Data.

Descriptive statistics for all composite mean scores for teacher efficacy beliefs, perceived importance, and openness for SEL are provided in Table 2. All variables showed acceptable reliability scores ($\alpha > .70$), except for the comfort and culture subscales falling just below these criteria. Mean scores revealed teachers reported an increase in their perceived importance and openness to professional development on SEL programming. Additionally, teachers' perceptions of their comfortability, competency, and culture for implementing SEL in PE showed mid-level scores.

Table 2. Descriptive Statistics, Correlations Estimates, and Cronbach's Alpha Coefficients

	Variable	1	2	3	4	5
1	COMF	1				
2	COMP	.205	1			
3	CULT	.050	.143	1		
4	IMP	.135	.130	.104	1	
5	OPEN	-.001	-.078	.024	.059	1
	<i>M</i>	3.467	3.50	3.342	3.790	2.03
	<i>SD</i>	.989	.983	.778	.969	.701
	α	.620	.751	.600	.745	.845
	Scale	1-5	1-5	1-5	1-5	1-3

Note: COMF = comfortability; COMP = competency; CULT = culture; IMP = importance; OPEN = openness; α = Cronbach's alpha estimates of internal consistency

Primary Analysis

A series of MANOVA tests were conducted to evaluate the differences among all factor means by a series of demographic and contextual variables (see Table 2). Box's Test of Equality of Covariance was used for each MANOVA and showed nonsignificant results ($p > .05$) suggest equal variances amongst the data sets. Multivariate results for differences by teacher gender (female and male) and SEL beliefs (comfort, competence, and culture) were nonsignificant, (Wilk's $\Lambda = .993$, $F(3, 153) = 0.66$, $p = .79$). Multivariate results for teaching context (rural, suburban, and rural) and SEL beliefs however did show significant differences (Wilk's $\Lambda = .923$, $F(6, 308) = 2.11$, $p = .05$). Specifically, differences in reported culture was found to be significant by context ($F(2, 308) = 2.968$, $p = .05$), with post-hoc analysis showing that there were perceived culture differences between suburban and urban contexts ($p = .016$), with suburban teachers reporting higher perceived SEL culture in their schools. Multivariate results for years of teaching (see Table 3 for groups) and SEL outcomes were nonsignificant (Wilk's $\Lambda = .909$, $F(12, 402) = 1.237$, $p = .26$). However, a trend in the data showed younger teachers (0-5 years) reported higher levels of perceived comfortability with SEL programming than older teachers (see Table 3 for means).

Table 3. Means and SDs by Each Group for MANOVA Analysis

Variables	COMF	COMP	CULT	IMP	OPEN
Gender					
Male (78)	3.601 (.111)	3.512 (.112)	3.296 (.087)	3.636 (.109)	1.985 (.080)
Female (79)	3.371 (.110)	3.478 (.112)	3.401 (.086)	3.960 (.108)	2.071 (.079)
Years teaching					
1. 1-5 (31)	3.876 (.167)	3.726 (.174)	3.525 (.139)	3.814 (.174)	1.912 (.119)
2. 6-10 (28)	3.315 (.175)	3.561 (.183)	3.274 (.146)	4.024 (.183)	2.031 (.126)
3. 11-19 (42)	3.355 (.143)	3.402 (.149)	3.310 (.119)	3.652 (.150)	2.045 (.103)
4. 20-25 (30)	3.277 (.170)	3.482 (.177)	3.351 (.141)	3.731 (.177)	2.162 (.121)
5. 26+ (25)	3.799 (.186)	3.404 (.193)	3.231 (.155)	3.807 (.194)	1.913 (.133)
Context					
Rural (45)	3.419 (.148)	3.544 (.147)	3.268 (.115)	3.791 (.145)	1.990 (.105)
Suburban (68)	2.490 (.121)	3.568 (.119)	3.499 (.093)	3.835 (.118)	2.013 (.085)
Urban (46)	3.479 (.147)	3.354 (.145)	3.180 (.113)	3.723 (.144)	2.094 (.104)
Teaching Level					
Elementary (81)	3.537 (.110)	3.568 (.109)	3.302 (.086)	3.807 (.108)	2.132 (.077)
Secondary (64)	3.377 (.124)	3.493 (.123)	3.450 (.097)	3.778 (.122)	1.912 (.087)
Both (14)	3.467 (.265)	3.132 (.262)	3.075 (.207)	3.744 (.261)	1.978 (.186)
Educational Level					
Bachelor's (65)	3.420 (.121)	3.581 (.120)	3.378 (.097)	3.691 (.119)	1.941 (.082)
Advanced (93)	3.526 (.101)	3.469 (.100)	3.317 (.081)	3.876 (.100)	2.060 (.069)
PE Certification					
Yes (146)	3.470 (.081)	3.487 (.080)	3.314 (.064)	3.786 (.081)	2.051 (.057)
No (12)	3.625 (.281)	3.854 (.278)	3.646 (.224)	3.847 (.281)	1.639 (.198)
Scale	1-5	1-5	1-5	1-5	1-3

Note. MANOVA = multivariate analysis of variance; COMF = comfortability; COMP = competency; CULT = culture; IMP = importance; OPEN = openness.

Multivariate results evaluating potential differences for gender (female and male) regarding their SEL outcomes perceptions (importance and openness) was also found to be significant, (Wilk's $\Lambda = .962$, $F(2, 154) = 3.025$, $p = .05$). Specifically, female teachers reported higher perceived importance ratings compared to male teachers ($p = .02$).

Multivariate results for potential differences in context (rural, suburban, and urban) and reported SEL outcomes were nonsignificant (Wilk's $\Lambda = .991$, $F(4, 310) = .357$, $p = .84$).

Multivariate results for differences in SEL outcomes based on years of teaching were also not significant (Wilk's $\Lambda = .952$, $F(8, 300) = .939$, $p = .49$). Interestingly, the data showed trends of teachers (6-10 years of teaching, $M = 4.024$) having the highest levels of perceived importance, while teachers (20-25 years of teaching, $M = 2.357$) having the highest levels of perceived openness to SEL professional development.

Chapter 5: Discussion

The purpose of this study was to explore the relationships of several environmental and personal perceptions about PE teachers' beliefs for implementing SEL. Researchers collected teachers' perceived barriers, competence, comfortability, and culture to implement SEL. Teachers' perceived importance of SEL and openness to receiving SEL professional development were also collected. These factors were then analyzed for differences among groups such as teacher context and gender. Findings indicate differences in culture based on teachers' context. Furthermore, PE teachers from different contexts had varying levels of perceived importance of SEL. When examining differences among gender, female PE teachers reported higher perceived importance of implementing SEL. To understand factors that impact the implementation of SEL in PE, it is necessary to examine PE teachers' barriers and perceptions of SEL.

When investigating physical educators' barriers to implementing SEL, it was interesting to find that nearly 70% of PE teachers in our study reported they did not have time available to teach SEL. This could be due to SEL being a newer content area, and potentially being seen as something that has to be added to their curriculum, as opposed to something that can be easily added within current teaching behaviors and practices. This is consistent with existing literature demonstrating that physical educators are less likely to implement new instructional models when they doubt their effectiveness or ability to apply it (Reeves et al., 2014). In this study, over 60% of PE teachers reported their current level of training in SEL was a barrier to implementation. Given this, it is understandable that these teachers might feel inadequate or unprepared to begin teaching SEL within their PE lessons. Scholars have indicated that professional development

experiences are typically selected by school administration, and this significantly impacts adoption and sustainability of a new curricular effort (Fullan, Miles, & Jacobson, 2009). It stands to reason that teachers may not implement SEL due to a lack of administrative support for it. Improved understanding of the barriers and facilitators to teachers' implementation of SEL in PE has important implications for the creation and delivery of these professional development experiences.

School administrators play a significant role in the culture of a school (Hallinger & Heck, 1996; Patti & Tobin, 2006). The current study revealed differences in school culture around SEL with culture including environment and administrative support. Specifically, suburban teachers reported higher levels of cultural support than urban teachers. This is likely due to urban schools often receive less funding in comparison to other contexts (Kantor & Brenzel, 1992; Skaalvik & Skaalvik, 2011), resulting in fewer professional development opportunities. In contrast, urban PE teachers in our study reported the *highest* levels of importance of SEL. Following Kantor & Brenzel (1992), we speculate that this may be due to increased frequency of violence, aggression, and teacher-student altercations leading teachers in these contexts to place high value on the affective domain. This is consistent with Ennis and Chen (1995) who found urban physical educators focused on affective value orientations (self-actualization and social responsibility). It is clear that more research is needed to fully understand differences among teacher contexts and professional development efforts in SEL that may be most receptive in urban schools.

Our findings indicate a relationship between PET's gender and their believed importance of SEL. In this study, female teachers reported higher levels of overall

importance of SEL in PE than their male colleagues. Previous research has found differences between males and females with respect to their willingness to learn (Schnitzius et al., 2021). If female teachers are more open to learning, it may be that they sought SEL professional development or have used resources that have been distributed through organizations, such as SHAPE America's Physical Education/SEL Crosswalk (SHAPE, 2019). Additionally, elementary teachers reported increased importance over secondary physical educators. However, this could be due to higher numbers of female PE teachers in elementary schools (UNESCO Institute of Statistics, 2020). In addition, SEL practices and instruction may feel more suited for younger developing students and the current level of training and assistance may target elementary teachers more effectively than secondary PE teachers. More research is needed to understand why there are differences among genders, and potentially grade span, in physical education, specifically why male teachers value SEL less.

In this exploratory study, researchers identified trends in differences based on teachers' years of experience. Specifically, younger teachers (0-5 years) reported higher levels of perceived comfortability and competency to implement SEL. It is possible that this is due to the inclusion of SEL in physical education teacher education (PETE) programs using resources like Teaching Social and Emotional Learning in Physical Education (Wright & Richards, 2021). Alternatively, younger teachers may be more malleable and therefore, more easily influenced to implement new concepts. Research shows that young teachers' socialization is heavily influenced by their school culture and norms during their first years in their organizational socialization, often called institutional press (Richards et al., 2014). Therefore, if a young teacher joins a school

with a culture that supports SEL, they are more likely to attempt implementation. However, when looking at teachers' openness to SEL professional development, the group with the highest levels had 20 to 25 years of teaching experience. To understand the impacts of years of experience on SEL implementation, more research is needed on teacher socialization and professional development interventions.

Limitations and Future Research

We offer several limitations to this exploratory study that warrant consideration. All data were collected via self-report. Although this mode of data collection can be valuable, it is recommended that other options be explored, such as observations, evaluations, and qualitative methods to further investigate factors impacting physical educators use of SEL. Additionally, the survey measurement tools for the multiple dimensions of efficacy that were used did not all meet the reliability standard ($\alpha > .70$). This is potentially due to changing the wording of the items to include physical education language. Thus, a SEL survey tool designed for physical educators is needed. It should also be noted that the snowball method used to recruit participants may be prone to bias due to using PETE program list serves and personal acquaintances. It is recommended that other methods be used in addition, such as social media, to reach a broader audience.

Future research should employ qualitative approaches to gain a more in-depth, rich, and nuanced understanding of the barriers that prevent PE teachers from using SEL. In addition, scholars should seek to understand differences between teacher contexts and gender in relation to SEL implementation. It is imperative to understand what factors are influencing teachers to use (or not use) SEL in order to gain perspective on how researchers can provide support and educate teachers. From our study, it is apparent that a

lack of professional development (PD) on SEL is a barrier to PE teachers' implementation. Therefore, experts need to design accessible PD for SEL in PE. Specifically, we offer the use of communities of practice (Parker et al., 2010) as teachers have reported collaboration with others as the most valuable component of PD (Armour & Yelling, 2007). It seems that teachers in urban contexts may need the most support for SEL.

Conclusion

Overall, this exploratory study has identified major perceived barriers of physical educators on the ability to implement SEL and differences among physical educators' and factors impacting their use of SEL. As education, and specifically physical education, continue to push SEL to the forefront, it is crucial to understand the barriers that prevent teachers from incorporating SEL into their classrooms. It is imperative to note that over 60% of participants agreed that SEL programs should be taught in PE and over 90% agreed that SEL is important to be successful in school and in life. Therefore, the next step is to identify how to make SEL PD accessible and easily incorporated into PE curriculum.

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