



Generalist Early Education and Specialist Physical Education Teachers' Views on the Scope of Early Childhood Physical Education

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ABSTRACT

On a national ministerial announcement concerning employing specialist Physical Education (PE) teachers to teach PE in early childhood education (as opposed to generalist early education teachers), this research sought to investigate teachers' views on this issue. Taking Lawson's (1983) theory of occupational socialization as a sensitizing framework, we examined whether teachers' specialization and experiences of participation in PE influenced their perspectives on early childhood PE teaching. Twenty in-service teachers, male and female, working in public education as generalist early childhood teachers (n = 10) and specialist physical education teachers (n = 10) participated in the study. Semi-structured interviews and the thematic analysis technique were used to generate data. The results showed that irrespective of their specialization, teachers' positive acculturation experiences in PE and sports influenced their attitudes towards early childhood PE. However, all participants assigned a functional-practical value to PE rather than an educational one. This finding was attributed to broader socio-cultural influences concerning the scope of school PE in early education. Both generalist and specialist teachers perceived their professional roles and responsibilities as distinct. They advocated for establishing interdisciplinary professional training programs as a prerequisite for employing PE specialists in early childhood education. Even though teachers' specialization shapes their scientific assumptions and understandings, personal acculturation and professional socialization experiences seem influential in determining their daily practices at school. The emerging early childhood PE literature could open up a myriad of opportunities for research in this field, always keeping in mind that the learning needs and interests of young children stay in the foreground.

INTRODUCTION

Early childhood education promotes children's learning and social integration, positively impacting their cognitive and psychomotor development (Casey & Goodyear, 2015). A significant number of studies in the field examine young children's of motor competence and physical fitness or their participation in various forms of physical activity (Barnett et al., 2016; Dowda et al., 2009; Goodway et al., 2010; Vale et al., 2010; Venetsanou et al., 2015). Studies of this kind align with concerns about children's psychomotor development and health (McEvelly et al., 2013) and suggest practices that may combat obesity and lifestyle diseases (Herskind, 2010). However, researchers in early childhood Physical Education (PE) recognize the connectedness of mind, body, and spirit and advocate for adopting, holistic approaches to child development and learning (Gallahue & Cleland-Donnelly, 2003; Gresham, 1998; Yovanka & Winsler, 2006). In this regard, school PE has been suggested as one of the most appropriate contexts for young children's holistic development (McEvelly, 2014, 2015), especially when teachers know how to design and deliver purposefully planned instruction that takes children's voices and capabilities for agency into account (McEvelly et al., 2013).

Research in early childhood PE shows that the design and implementation of quality programs for young children is a challenging endeavor since it requires specialized knowledge and positive attitudes from the teacher. The teacher plays a crucial role in shaping the teaching and learning environment (Tannehill & MacPhail, 2014). The early childhood teacher is a critical person in the classroom (Gehris et al., 2015). Apart from his/her caring relationship with toddlers (Miller & Almon, 2009), the early childhood teacher should be able to present PE content in developmentally appropriate ways (Tsangaridou et al., 2022) so that toddlers experience freedom and happiness. For this purpose, the development of early childhood teachers' PE content knowledge has been suggested as a prerequisite for quality PE instruction (Casey & Goodyear, 2015; Tsangaridou, 2017; Tsangaridou & Genethliou, 2016). Until today, in most countries, early childhood PE is taught by generalist classroom teachers and not by PE specialists (Tsangaridou, 2017). This may be an issue of concern since while generalist classroom teachers may have studied PE during their undergraduate years, PE specialists have usually completed a four-year PE bachelor program. In this sense, generalist teachers may have acquired the expertise to teach PE, while PE specialists are more expert in delivering their instruction according to contextual parameters and regarding prioritized key learning areas (Truelove et al., 2019; Walton-Fisette et al., 2018). Research shows that subject specialization is related to teachers' sense of professionalism, increasing their efficiency and capabilities to

teach in a context-appropriate manner (Loughran et al., 2012). PE specialist teachers possess subject-specific content knowledge, teach longer lessons and use state-of-the-art PE teaching practices, and thus are more efficient in delivering quality PE instruction, compared to non-specialist teachers (DeCorby et al., 2005; Faulkner et al., 2008; Spence et al., 2004). Further, they are more committed to promoting effective PE lesson design and encouraging an “active school” climate (Fox & Harris, 2003) than their non-specialist colleagues. These qualities are essential in promoting young children’s holistic development through PE (Kamberidou et al., 2019).

Research in the field of PE points out that teachers' early acculturation experiences in school PE and/or sports may influence the views and practices that they will adopt later as specialists (Richards et al., 2019). Teachers' biography and experiences within PE contexts sometimes seem more influential than coursework within university programs (Flory, 2016). Similarly, the influences that teachers may receive from the local community, parents, or colleagues regarding the subject of school PE (Gordon et al., 2016; McCullick et al., 2012); as well as associated professional learning opportunities during their studies or years of service in education (Dania, 2021; Dania & Tannehill, 2021), will ultimately shape the quality of their teaching. Some evidence indicates that PE teachers may experience subject marginalization (Lux & McCullick, 2011) or inter role conflict about assuming their expected dual roles as teachers and coaches (Richards & Templin, 2012). These occupational socialization experiences may relate to biases and/or values concerning the scope of PE in education (Richards et al., 2019). Thus, if teachers do not reflect on their perspectives via their personal or occupational socialization experiences, they may deliver lessons that either hold considerable control over children’s behaviors (e.g., overly structured classroom activities) or legitimize their lack of instructional skills by referring to children’s relentless persistence for play as a barrier to their lesson planning (Flory et al., 2014; McEvelly et al., 2013).

According to Lawson's occupational socialization theory (1983a), teachers are exposed to the social, psychological, and political dynamics of what it means to be a PE teacher during their years of education and socialization in different PE and sports settings. These experiences shape the practices and actions they will adopt afterward as professionals in school contexts. As defined by Lawson, occupational socialization consists of three discrete phases: (a) *acculturation*, which reflects childhood and adolescence experiences of participation in PE and sports contexts (e.g., through ‘apprenticeship of observation’ of family, friends, teachers, and coaches), (b) *professional socialization*, that happens when pre-service teachers enroll in teacher education programs (e.g., influences from university curricula), and (c) *organizational*

socialization, which occurs as part of the job and throughout teachers' working situations and context (e.g., influences from colleagues and the local community) (Lawson, 1983b, 1986). Experiences accumulated during these phases have a long-lasting impact on teachers' views about the scope and content of their teaching (Richards et al., 2014). Such experiences may reaffirm and/or challenge teachers' existing subjective theories (Richards et al., 2014), and undergraduate studies usually do very little to influence the way teachers will actualize their own PE curriculum at school (Adamakis & Dania, 2020; Kyridis et al., 2015).

The salient issues that influenced the current study were the value of teaching PE in early childhood settings and the way that teachers' socialization experiences may influence their pedagogy and practices in these settings. Numerous studies exist regarding specialist PE teachers' occupational socialization experiences (Richards et al., 2014; Prior & Curtner-Smith, 2019; Romar & Frisk, 2017) and generalist teachers' practices and perspectives concerning the values of PE in early childhood (Marinsek & Kovac, 2019; Sevimli-Celik, 2021; Tsangaridou & Genethliou, 2016; Tsangaridou et al., 2021). However, very little is known about the differences between specialist and generalist teachers' perspectives on the value of early childhood PE. Much less is also known about how teachers' occupational socialization experiences and subject specialization may influence the teaching of PE in early childhood settings. Consistent with the growing knowledge and interest in early childhood education (McEvilly et al., 2015), all educators of young children must have the skills and attitudinal perspectives related to the effective delivery of PE instruction (e.g., understanding young children's development, having the desired level of teaching competencies for implementing quality PE). Thus, understanding teachers' views and perspectives about early years PE is essential for improving and suggesting quality PE programs and practices.

Purpose of the Study

This study aimed to explore generalist early childhood and specialist physical education teachers' views concerning PE in early childhood settings. Focusing on teachers' perspectives, we used Lawson's (1983a, 1983b) theory as a sensitizing framework to analyze whether and how teachers' specialization and occupational socialization experiences influenced how they positioned themselves on the issue of early childhood PE teaching.

Specifically, our research questions were:

- (a) *Do teachers' occupational socialization experiences, in and through PE and sport, influence their views on early childhood PE teaching?*
- (b) *Does the teacher's specialization influence the above views?*

METHODS

Study Group

A total of 20 in-service male and female teachers (N = 10 generalist early childhood teachers, N = 10 specialist physical education teachers) aged 36 to 51 years old, participated in the study. The research carried within this study was approved by our university's Bioethics and Research Ethics Committee (No 1284/19-05-2021). A purposive, homogeneous sampling strategy was used (Denzin & Lincoln, 2017), and individuals with shared characteristics were selected in each subgroup of teachers. By the time of the study, all participants had more than seven years of teaching experience. According to the country's teacher education curriculum, generalist early education teachers had completed a four-year bachelor program in early education (240 ECTS credits) and specialist physical education teachers a four-year bachelor program in physical education (240 ECTS credits). As part of their undergraduate studies, generalist early childhood teachers could attend elective courses relevant to PE (e.g., developmental psychology, music and movement for young children) and were qualified by the country's Ministry of Education to teach PE in early childhood settings (Gregoriadis et al., 2016). On the other hand, specialist PE teachers could attend elective courses relevant to early education (e.g., developmental psychology, creative movement in early education) and were qualified by the country's Ministry of Education to teach as specialists both in primary and secondary education (Dania & Griffin, 2021). Participants were eligible to participate in the study if they (1) were working either full-time or part-time in public education; (2) had more than five years of teaching experience in public primary or private early education settings (only for specialist PE teachers, since according to the country's teacher education curriculum, specialist PE teachers were not hired to teach PE in public early education settings); (3) were teaching at least one class of PE a week with games or movement learning activities (only for generalist early education teachers); (4) were willing to take part in an interview; and (5) agreed to have their interview recorded. Participant recruitment was completed until theoretical saturation was achieved (Patton, 2014).

Data Collection Tools

Physical Education in the early childhood curriculum in our country is taught by generalist early childhood teachers, who are not required to have a specific degree in PE to teach this subject (Official Gazette, 2003). Their PE knowledge is based on knowledge acquired during their bachelor studies (usually up to 9 university credits) within university classes or modules focusing on movement and rhythm or game-play activities. On the other hand, PE

specialists (i.e., teachers that have majored in PE at a bachelor level) have received specialized undergraduate education and training to teach at a primary and secondary level. However, until this study, they were not hired or specifically prepared to teach in early childhood education. Thus, what they may know or be able to do concerning early childhood PE depends much on their experiences as PE specialists in primary schools (grades A and B) or in private pre-primary schools and settings (e.g., working with children as young as three years old in after school programs).

According to the country's early childhood education curriculum, a teacher is expected to be able to plan and implement lessons that fall within the following developmental areas: language, mathematics, environmental education, creativity and expression, and digital skills. Experiential teaching strategies and project-based learning activities are suggested to be used across all areas (Riga, 2017). PE is included within the creativity and expression area of the national curriculum, with a focus on the following learning outcomes (a) body awareness in time and space, (b) body language as a means of communication-expression, (c) play, sport, and game skills, and (d) health education and safety. National ministerial documents have focused on PE as a context within which children can develop fundamental motor skills, learn how to interact effectively within unstructured or free play activities or develop skills that will facilitate their holistic upbringing (Early Years Foundation Stage Framework and Teaching Guidelines, 2011a, 2011b; Greek Integrated Curriculum Educational Preschool Program, 2002; Kindergarten Curriculum, 2011; Official Gazette, 2003). To achieve the above goals, many activities have been suggested, including structured or gameplay, balance and body control exercises, object handling activities, basic motor skill activities, rhythm and movement exercises, dancing and improvisation, sporting and local tradition events, etc.

In the above context, early childhood teachers are free to choose the activities of their preference and design PE instruction in a way that equally promotes the curriculum learning outcomes. As a response to research showing the positive impact of specialist PE teaching on young children's holistic development and total health, many ministerial documents and announcements have periodically stressed the need to employ specialist PE teachers in early childhood education in our country. This was the case in our study when in 2021, the Minister of Education announced the employment of specialists for teaching PE in early childhood education. The Minister commented on the need to modernize early childhood curricula and announced the government's initiatives towards employing specialist teachers in early education in the fields of English Language and Physical Education teaching. National early childhood teacher federations reacted negatively to the ministerial announcement, arguing

that specialist teaching would provide fragmented learning experiences to toddlers and thus create barriers to their holistic development. By the time of the present study, the ministerial announcement has been applied only to English Language teaching in early education in our country, and regulations or implementation methods concerning specialist PE teaching have not yet been defined. As such, early childhood PE in the country, in the year 2023, continues to be taught by generalist early childhood teachers. This issue was an underlying reason for conducting this study and particularly comparing the views of generalist and specialist teachers' views regarding the scope and value of PE in early childhood education.

Research Design

To generate data for our study, semi-structured interviews were conducted with all participants, who were encouraged to talk openly about various components of PE teaching or their experiences in programs, courses, and training related to PE and sport. Based on the communicative interaction with participants in the first two interviews, a semi-structured interview guide was formulated, in line with the stages of Lawson's occupational socialization theory (1983a, 1983b) and the content of the ministerial announcement. The interview guide was used to ensure consistency across participants. It was considered necessary to focus on the aspects of the phenomenon under study, allowing for flexibility in participants' responses without limiting the researchers' perspectives (Patton, 2014). Initially, three broad categories of questions were developed (with 5-6 questions per category) related to teachers' acculturation, and professional and organizational socialization experiences in and through PE and sport. In consultation with an expert researcher from the field of sport pedagogy and PE teaching, all interview questions were afterward phrased to explore the views of generalist and PE specialist teachers' experiences/memories of participation in PE and extracurricular sports programs. Questions were related to teachers' experiences during their school years (e.g., *How would you describe the PE class during your school years?*), to experiences/memories of courses related to PE during their bachelor studies and their employment as undergraduate students (e.g., *what PE courses or seminars for preschool children did you attend during your studies?*), and to the practices they adopted in their professional development (e.g., *when you were appointed or hired, how would you describe the influences, the help or lack of help from managers/supervisors, colleagues, or the parents of the children, when you wanted to do something with PE/when you wanted to teach PE in small classrooms?*). In total, twelve questions were included in the semi-structured interview. Interviews were conducted individually from July 2022 to August 2022 at each participant's site and generally covered 30 min to an hour (DiCicco-Bloom

& Crabtree, 2006). All interviews were audio-recorded and transcribed verbatim from October 2022 to December 2022. Detailed notes were also kept during each interview as a means to clarify, explain, or further elaborate what was discussed during each interview (Patton, 2014).

Data Analysis

The thematic analysis technique was used for data analysis. Specific identifiers (pseudonyms) were assigned to participants, using these to label their interview records (e.g., PE teachers were given the identifiers *PE1*, *PE2*, *PE3*, etc., and early childhood teachers the identifiers *EC1*, *EC2*, *EC3*, etc.). Interview transcripts were analyzed according to teachers' specialization (generalist early childhood [EC] versus specialist physical education [PE] teachers). Data were analyzed in two phases (by the first and the second author, respectively) using individual-case and cross-case analysis (Yin, 2013). Both authors read the interview scripts carefully to identify mutual themes and/or concepts and formulate common categories afterward (Patton, 2002). Both researchers used conceptual inputs from the literature, and data were examined both inductively and deductively through thematic analysis (Braun & Clark, 2006) with reference to the notions of the study's sensitizing theoretical framework. The analytical process involved six steps: familiarizing with the data set, generating initial codes, searching for themes, reviewing themes, defining, and naming themes, and producing the report (Braun & Clark, 2006). Data analysis started with generalist teachers and continued with specialist PE teachers. Finally, a cross-case analysis was conducted to reveal similarities and/or differences in participants' views on the data categories.

To maintain trustworthiness, the study procedure was explained thoroughly to participants at the beginning of the study (Lincoln & Guba, 1986). All stages of the research process were documented based on relevant confidentiality criteria (Denzin & Lincoln, 2017). The triangulation of data involved member checks conducted to test preliminary findings and interpretations against raw data, thick descriptions within and between cases, field notes, and a reflective journal kept by the first author (Nowell et al., 2017).

RESULTS

Data analysis was conducted across two main axes: (a) scope of early childhood PE and (b) the implementation methods of the ministerial announcement.

Concerning participants' views on the scope of early childhood PE three themes were produced:

1. *General notion of school PE.* This theme summarizes participants' school experiences in PE, as well as their experiences through their involvement-participation in extracurricular sports.
2. *Undergraduate pursuits of professional learning.* This theme captures the type and form of knowledge and skills in PE that the participants gained during their undergraduate studies and their apprenticeship/internship learning experiences.
3. *Social influences on professional development.* This theme highlights the influence of social parameters/variables that contributed to establishing and consolidating the skills and attitudes of the participants as regards early childhood PE teaching.

Regarding participants' views on the implementation methods of the ministerial announcement, two themes were produced:

1. *Recognition of Distinct roles.* This theme defines the boundaries set by the participants concerning the responsibilities and roles of generalist and specialist teachers in early childhood settings.
2. *Early Childhood physical education programs.* This theme highlights participants' views on the structure of early childhood PE along with the need for interdisciplinary professional development programs.

All themes are presented below per separate axis and accompanying excerpts from the interviews.

Scope of Early Childhood Physical Education

General Notion of Physical Education

Reflecting on their school experiences, almost all participants described PE as enjoyable. Most of them associated PE with unstructured game activities or dance delivered by generalist teachers in primary education or as organized sports delivered by specialist PE teachers in secondary education. These memories seemed to be reinforced by participants' positive experiences of involvement in after-school sport during their childhood and adolescence. Family and/or community influences contributed to the formation of sports awareness from a very early age, and this was more evident for PE teachers. This also seemed to reinforce PE teachers' negative comments concerning the lack of a caring attitude on the part of their high school PE teachers. The following quotes are typical:

"...back then there were no specialist PE teachers in primary schools and the generalist teachers would take us out every now and then and we would do like...different body exercises..." (EC2)

"...we liked it very much [PE] and every time we had a new PE teacher, we hoped that things would change... but it was still the same routine/regime... the new teacher did not care about us at all..." (PE4)

"...I come from a sport family, my dad was a PE teacher, so I have been around the courts from a very young age...." (PE9)

"...I played volleyball for years... basketball, track and field and much younger I did ballet...I love traditional dance..." (EC9)

Undergraduate pursuits of professional learning

All participants reported that there were no distinct courses focusing on early childhood PE in their university curricula during their bachelor studies. Early childhood teachers noted that courses that were more relevant to PE were the ones that focused on music and movement education, and drama. On the other hand, PE teachers reported that they took music and movement courses at an undergraduate level:

"...as far as I remember, there was no distinct PE course at the university. The only similar course I can remember, let's say, with physical education, anyway, is the music and movement course that we had, we combined movement with music, and we did a lot of improvisation there..." (EC8)

"...one could say that the music and movement course that we had was the most relevant...[with PE].." (PE1)

The absence of relevant university courses or pedagogical content knowledge concerning the teaching of early childhood PE is evident in their statements, especially when they describe its content and scope:

"...PE is movement. In early childhood, we try to use a lot of activities that involve movement because they attract the children's interest, and their attention is not lost..." (PE8)

"...I'm not a PE specialist, and I don't know how to do it [PE class] well either...but what I do want is for kids to have a good time even if I'm doing it wrong...." (EC9)

"...[PE in early education] are the games that we use in first and second grade...I would try to make the game simple, especially if children don't understand how to play..." (PE8)

Social influences on professional development

As reported within the interviews, early childhood teachers were working with one-year contracts. They thus were changing school environments more frequently, as opposed to PE teachers who had a permanent employment status but only in primary school settings. For

all, a teacher's employment status may create barriers to his/her ability to formulate a developmentally appropriate PE curriculum:

"...as a newly appointed teacher, I travelled all around the country... I followed the formal early childhood curriculum and tried to collaborate with colleagues..." (EC2)

"...when I was appointed in primary education, it was expected that the PE teacher would be responsible for all grades...so I taught in the first and second grade even without adequate pedagogical knowledge..." (PE2)

Especially for early childhood teachers, factors such as the school culture, or the prevailing social perceptions and stereotypes about early childhood PE appeared to be presented as obstacles in delivering PE instruction. As they reported:

"...a lot of times the school climate was negative (principals and some others) ...you were told that you can't do it [teach PE] ...so you let it go [did not teach PE], to avoid any problems..." (EC7)

"...I'm not saying they don't want their kids to move, but you can see that they're generally cautious. Parents don't want their children to get dirty, they don't want them to get even a scratch, ... they consider them too young..." (EC2)

Implementation of the Ministerial Announcement

Recognition of Distinct Roles

While all participants agreed that the early childhood teacher is a reference person for infants, they pointed out that each specialization is unique, in terms of allowing teachers to be experts in their area. Thus, they all agreed that in the case that specialist PE teachers were employed to work in early education settings, they would need to cooperate and collaborate (in the form of co-teaching) with the generalist early education teacher. They mentioned the following:

"...the younger children, as young as four-years old, let's say, can't follow,.....they get confused, and when they don't understand, they stop trying and sit on the side by themselves. So we, the early childhood teachers, should be there to help the PE specialists..." (EC8)

"...we have to cooperate-collaborate...this cooperation needs to focus on the characteristics of young children that I, as a PE specialist do not know. I am not aware of the particularities of children at that age..." (PE10)

Early childhood teachers seemed to doubt the knowledge and skills that PE teachers had to teach at a pre-primary level. Further, they expressed concerns about early-childhood

teachers' employment and access to economic resources in case PE teachers were employed with permanent working contracts. This was not the case for PE teachers, who looked for such an opportunity, since their employment in early childhood education would open new working positions for their sector:

"...I think that the PE teacher – apart from his/her subject-matter knowledge – should also know the principles and practices of early childhood teaching, as we do..." (EC6)

"...I can't even think that many early childhood teachers who work with short-term contracts will be unemployed as a result of PE teacher's employment in pre-primary schools..." (EC7)

"...I think it is very positive for our sector... many PE colleagues who are not working will be employed..." (PE1)

Early Childhood Physical Education Programs

Specialist PE teachers advocated for 45-minute PE lessons daily, while generalist early childhood teachers suggested 20-25 minutes and not necessarily every day. PE teachers' position was based on arguments concerning the positive effects of PE on children's healthy development. In contrast, early childhood teachers based their argument on the developmental characteristics of children at this age (e.g., attention that is distracted easily). What was indicative was that early childhood teachers used pedagogical terms to support their claims, while PE teachers used a sport-oriented terminology for the same purpose:

"...the PE teacher needs to have anatomical content knowledge and also be able to use principles of neuro-muscular coordination when teaching young children..." (PE6)

"...with proper pedagogical training...I think we could collaborate and work together...as far as each one of us knows what to do [according to the early childhood curriculum] and how to do it [pedagogically]..." (EC1)

DISCUSSION

The present study explored generalist early childhood and specialist physical education teachers' perspectives concerning the scope of PE teaching in early childhood education. Using Lawson's (1983a, 1983b) theory as a sensitizing framework, we examined whether teachers' specialization and experiences of participation in PE and sports environments influence their perspectives on early childhood PE teaching. The results showed that irrespective of their specialization, all teachers held similar views concerning the scope of early childhood PE as a context for practicing physical/motor activities that had a functional value (e.g., to help children to develop motor skills, healthy attitudes, etc.). This notion was

based on the experiences they had accumulated from PE and sports contexts as early as their school years. All teachers' professional learning pursuits during undergraduate studies, as well as their social influences as newly qualified teachers in various educational fields, did not seem to influence this perception drastically. Both generalist and specialist teachers acknowledged their roles and responsibilities as equally essential but distinct. Thus, they advocated for interdisciplinary training in case PE specialists would be employed as full-time teachers in early childhood settings. These findings are discussed further in the following paragraphs in relation to the study's main research questions.

Almost all participants recalled pleasant experiences from their years of involvement with school PE, describing PE as a less structured and enjoyable than other subjects. Some of them mentioned that during their years in secondary education, their experiences were not so positive, a fact that they mainly attributed to the lack of interest or the sporting-oriented styles of some specialist PE teachers. These findings are in line with relevant literature, according to which PE teachers are reported to add a recreational character to their lessons so that students feel comfortable while participating (Lodewyk & Pybus, 2012; Rikard & Banville, 2006). This seems to be the case with PE, since when lesson goals are developed according to student interests, an active school climate is established (Fox & Harris, 2003), and participation is perceived as a pleasant experience with an educational value (Balish et al., 2014; Crane & Temple, 2015).

Both generalist and specialist PE teachers described school PE as a setting for practicing skills and playing games, and this impression seemed to be related to their acculturation biographies (Flory, 2016) within different PE contexts. Research shows that this is a socially widespread notion of PE, equating the content of PE lessons with sports activities and skills that are taught in a fragmented, thus recreational way (Quennerstedt, 2013; Richards et al., 2019; Tinning, 2012; Ucus, 2015). Notably, participants who had been involved in sports as young athletes or had parents with positive sports attitudes seemed to have maintained this perception later, during their undergraduate studies and/or as preservice teachers. Studies show that teachers' positive acculturation and professional learning experiences in and through sports relate to their concerns about PE lesson quality (McKenzie & Kahan, 2008; McKenzie et al., 1999). Similarly, positive influences from parents or significant others reinforce concerns about the quality of PE (Gordon et al., 2016; McCullick et al., 2012). Considering the peripheral role that PE has within the school curriculum (Gaudreault et al., 2016; Richards, 2015), or the subject marginalization, many teachers may experience (Lux & McCullick, 2011), we argue that it would be a worthwhile undertaking to provide training

programs for parents, so that the educational value of PE can be supported by children's families, as early as pre-primary education.

During their bachelor studies, participants continued to view PE as a recreational context. However, they started to focus on its teaching in a subject-specific manner and emphasized different outcome goals and lesson activities. According to Forgasz and Leder (2008), adopting a 'practitioner' identity is a characteristic feature among teachers of different specializations. It was apparent that generalist early childhood teachers approached PE with a focus on teaching music-movement activities, drama, and games to develop children's creativity and expression. Such a focus related to generalist teachers' limited knowledge of PE teaching principles and strategies and is a finding also supported in relative studies (Tsangaridou & Genethliou, 2016; Tsangaridou et al., 2021). On the other hand, specialist PE teachers exhibited higher levels of knowledge and confidence to design simplified motor skills and physical activity content for young students. In line with relative research, specialists teach PE classes with higher levels of physical activity compared to generalist teachers (Truelove et al., 2019; Walton-Fisette et al., 2018).

What all participants reported, though, was an absence of early childhood PE modules during their bachelor studies. As they all claimed, their bachelor courses were delivered without a clear sense of purpose or a pedagogical consideration of the scope of early childhood PE. Within early childhood research, there is an ongoing discussion among experts about what should be the scope of learning regarding PE (Kirk & Haerens, 2014). This discussion strongly reflects the influence of developmental psychology in early childhood literature (McEville et al., 2013; Ponitz et al., 2009). According to the principles of developmental psychology, learning in early childhood is studied as an individual endeavor without reference to the formative role of socio-economic and cultural influences. This is also the case with the early childhood PE curriculum, which approaches children's development through a frequent reference to 'ages and stages' (McEville et al., 2013). Such an approach evokes images of what children are expected to have learned depending on their age and labels motor skill deficiencies with children's 'abnormal' development or performance.

Given the importance of social and emotional parameters to young students' holistic development (Wright et al., 2021), there have been many efforts in late years to reformulate the focus of university curricula for this age group. These efforts are supported by researchers who argue that learning should be viewed more socio-ecologically, incorporating pedagogical strategies that strengthen relationships between children, parents, caregivers, and teachers

(McEvilly et al., 2015). Such strategies also open new perspectives in teaching early childhood PE, focusing on the needs of students concurrently with societal needs and principles.

Our findings indicate that generalist and specialist teachers had formed a more empirical understanding of early childhood PE, based more on their love for physical activity and sport and less on their teaching skills or pedagogical content knowledge. Teachers who had developed positive acculturation experiences for sports as young children felt confident to teach PE even without relevant (pedagogical) content knowledge. A similar study by Humphries and Ashy (2006) shows that a teacher's love for PE was the strongest predictor of his/her effectiveness. However, all participants felt that including early childhood PE modules within their university curricula was imperative. Such a reform would undoubtedly require formal academic learning and professional training. Relative research points out that continuing education and professional learning are prerequisites for empowering and supporting teachers in teaching PE (Parker & Patton, 2017; Tannehill et al., 2021). Moreover, the establishment of learning communities and counseling programs seem to bring positive results in this direction (Dania & Ovens, 2021; Dania & Tannehill, 2021; Lave, 1993; Lave & Wenger, 1991; Oliver et al., 2018).

Apart from university influences, school infrastructures, as well as social parameters (e.g., relationships with parents and colleagues), seemed to act as barriers concerning teachers' views on the scope of early childhood PE. Irrespective of their specialization, they all suggested that a well-organized and supportive school environment is a prerequisite for quality PE teaching at a pre-primary level, something also reported in similar studies (Tsangaridou, 2012). Indeed, relevant research shows that socially established perceptions about the purpose and necessity of PE can act as barriers to its implementation (Gaudreault et al., 2016; Richards, 2015). Conversely, community collaboration and collective effort are needed for quality lesson design and implementation (DuFour & Fullan, 2013; Garet et al., 2001). Thus, awareness-raising activities concerning the educational value of PE are warranted before early childhood PE curricula are established.

As regards the structure of a typical PE lesson in early childhood settings, teachers in this study expressed views that aligned with their subject specialization and teaching philosophy. These findings are in agreement with the results of a meta-analysis which supported that specialist PE teachers are more concerned than generalists for health and physical activity outcomes and thus design lesson activities with such a focus (Truelove et al., 2019). However, both generalist and specialist teachers acknowledged the strong attachment and bonding that a preschooler develops with the early childhood teacher. For this reason,

they stressed the need for interdisciplinary collaboration, in case specialist PE teachers would be hired in early childhood settings. The necessity of establishing training programs where both generalists and specialists could accumulate multiple opportunities for professional development and collaboration is also suggested in the literature (Carson et al., 2013; Jess & McEvilly, 2015).

However, generalist early childhood teachers in our study were the ones who expressed concerns about the process of employing full-time PE specialists in early childhood settings. Their primary concern was that their already unstable employment conditions and economic insecurity (most early childhood teachers in this study have been working with temporary employment contracts for years) would be further threatened. We believe that this was an expected finding since educators' experience anxiety when they feel that their fundamental employment rights are being 'destabilized' (Bajaj, 2011). Thus, we strongly believe that the delivery of ministerial announcements should be matched by the right support from educational policy, in terms of specifically defining professional standards and working rights for teachers of all specializations (Gibson et al., 2020; Sperka & Enright, 2018).

Several limitations must be acknowledged in this study. First, the majority of study participants were female, a fact that is mainly the case, especially with generalist early childhood teachers in our country. Additional efforts could have been made to recruit more male participants. Concerning specialist PE teachers, the majority came from the same geographical region, an issue which may have affected the research findings. Thus, a larger group of participants from different geographical regions could have provided an alternative view of our issue. Finally, since interviews were the main sources of data collection, maybe a social desirability bias could have affected our findings. The conduction of classroom observations or interviews with school principals and/or parents could have provided a different picture.

CONCLUSION

This study argues that teachers' acculturation and professional socialization experiences within PE and sport settings influence their views concerning the scope of PE in early childhood education. Irrespective of their specialization, teachers' positive involvement with PE and sports in their school years helped establish positive views concerning the necessity of PE, as a distinct subject, in early childhood education. However, all participants appointed a functional rather than an educational value to PE (e.g., PE as gameplay and/or structured sports activities), something which was directly or indirectly linked both to their

university experiences and to wider socio-cultural influences. Generalist early childhood teachers referred to PE more via their role as pedagogues with whom children share secure attachments, while PE specialist teachers referred to PE more via their sporting specialization and physical activity orientation. All participants emphasized the need for collaborative professional learning as a prerequisite for employing PE specialists in early education settings.

It becomes evident, therefore, that teachers' specialization affects their daily practices, specifically regarding their teaching philosophies and scientific assumptions. However, personal acculturation and professional socialization experiences may increase or sustain teachers' efforts and capacity to teach PE. As such, collaborative training and professional development opportunities are essential and could help ensure that the unique demands of quality PE teaching in early childhood education are met.

PRACTICAL IMPLICATIONS

A growing number of studies make a compelling case concerning the need to update early childhood university modules so that future teachers experience PE as a context within which one becomes physically fit while being nurtured as a socially, cognitively, and emotionally healthy person (McEvelly, 2014, 2015). Towards this direction, contemporary principles of quality PE teaching propose the adoption of bio-pedagogical approaches, according to which students' participation in PE is experienced as a process of communicating, understanding, and interacting through, with, and via movement (Dania et al, 2022). Therefore, it would be interesting for future studies to further analyze the circumstances under which PE could be introduced as a distinct subject into the early childhood education curriculum, taught collaboratively by generalist and specialist teachers trained to implement bio-pedagogical approaches. The design of teacher professional development programs, and university modules that combine interdisciplinary research and practice could also be examined. The emerging early childhood PE literature could open a myriad of opportunities for research in this field, always keeping in mind that teachers' rights are protected, and the learning needs of young children stay in the foreground.

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Authors' contributions

All authors revised the manuscript and contributed to the interpretation of the results. All authors have read and approved the final version of the manuscript. A consensus was reached on the order of authors.

Declaration of conflict interest

The authors declare that there is no conflict of interest.

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