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Students with Orthopedic Impairments' Perspectives Toward Integrated Physical Education

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STUDENTS WITH ORTHOPEDIC IMPAIRMENTS' PERSPECTIVES TOWARD INTEGRATED PHYSICAL EDUCATION

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ABSTRACT

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Students with disabilities are educated in general physical education classes with their same aged peers more now than ever before (Governmental Accountability Office [GAO], 2010), yet little is known about how those with orthopedic impairments experience these integrated classes. Additionally, while a plethora of strategies are described as promoting 'inclusion', very few 'inclusive' strategies have been problematized. This dissertation followed a two-study format. The first study explored the lived experiences of students with orthopedic impairments in integrated physical education classes, and the second study examined how students with orthopedic impairments experienced strategies identified in the literature to support 'inclusion'. An interpretative phenomenological analysis research approach was used in each, and six students with orthopedic impairments (age 10-14 years) served as participants. Data sources included semi-structured, audiotaped interviews, reflective interview notes, and a written prompt. Based on data analysis, three themes developed in the first study: "Without it, they probably would like, just treat me normal": visibility, disclosure, and expectations; "I sit out": limited participation and a lack of modifications/accommodations; and "PE doesn't feel great": social interactions and perception of self; and four themes arose in the second study: "It's kind of embarrassing": experiences with support; "I don't want to be different": equipment, activity, and rule modifications; "I like to be a part of the conversation": autonomy and choice in PE; and "I would rather be like the other students": discussing disability. The themes highlight the

marginalization and lack of access that the participants encountered during their integrated physical education classes, indicating that physical education professionals may benefit from reflecting on personal biases, as well as their instructional practices in an effort to improve the quality of physical education experiences for their students. Further, the differential effects of these explicated 'inclusive' strategies were emphasized, whereas each strategy contributed to feelings of inclusion, as well as marginalization. The findings indicate that 'inclusive' strategies should not be considered as blanket recommendations; instead, attempts to promote 'inclusion' of students with disabilities should start with a reflexive look at the unique needs of each individual student.

Thatcher, this was for you before I even knew you.
Thank you for showing me what really matters.

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CHAPTER I: INTRODUCTION

The Society of Health and Physical Educators (SHAPE America; 2013), the national professional organization for health and physical educators in the United States, suggests that the goal of physical education (PE) is to provide students with the knowledge, skills, and values to become physically literate individuals, who have the ability, confidence, and desire to be active throughout their lifespan. Likewise, the Individuals with Disabilities Education Act (IDEA; 2004) mandates that all students, regardless of disability status, receive instruction in PE as a part of a free and appropriate public education. IDEA defines physical education (PE) as the "development of physical and motor fitness, fundamental movement skills and patterns, skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports)" (IDEA, 2004, 34 C.F.R.300.39[b][2]).

Seven million students in the United States, or 14 percent of the total public-school population, received special education services under IDEA (2004) during the 2017-2018 school year (National Center for Education Statistics, 2019). For most students with disabilities, this PE instruction was provided in general PE settings alongside their peers without disabilities (GAO, 2012). As such, although there has been a dramatic increase in the number of students with disabilities educated in general education settings across content areas (Heck & Block, 2019; Obrusnikova & Block, 2020), historically, PE classrooms were the most common setting for the initial shift from instruction in a self-contained classroom to instruction in a general education classroom with same-age peers without disabilities (Alquaraini & Gut, 2012).

Combining students with and without disabilities into one PE class has been discussed in a variety of ways in recent years, making the term 'inclusion' a "semantic chameleon" of sorts (Liasidou, 2012, p. 5). Some PE professionals consider the combining of students with and

without disabilities into the same educational space to be *inclusion* while others feel that *integration* is a more appropriate term (Haegele, 2019). The educational movement to involve students with disabilities in regular education programming that occurred in the United States, and around the world in recent years, has led to many researchers defining inclusion as a placement in which students with disabilities are physically educated in the same room as students without disabilities (An & Meaney, 2015; Doulkeridou et al., 2011; Hilderley & Rhind, 2012; Qi et al., 2016; Reina et al., 2019). Others, however, describe this placement as integration, and define inclusion instead as a philosophy related to the socially constructed environment within a PE class and how it relates to the experiences that the students with disabilities have within this environment (Hutzler et al., 2005; Morley et al., 2005).

For the purposes of this dissertation, Stainback and Stainback's (1996) interpretation of inclusion as a subjective experience associated with feelings of belonging, acceptance, and value was adopted. According to Spencer-Cavaliere and Watkinson (2010), this interpretation of inclusion supports the amplification of the voices of persons with disabilities, as inclusion is understood as a "subjective experience [requiring] investigation from the perspective of the child who is 'to be included'" (p. 275). Thus, throughout this document, the term integration is used intentionally to describe students with and without disabilities being educated in the same physical spaces (Haegele, 2019), and inclusion is used to describe the subjective experiences described by the participants (Spencer-Cavaliere & Watkinson, 2010) of belonging, acceptance, and value (Stainback & Stainback, 1996). This differentiation in terms allows researchers to problematize experiences within integrated settings and examine whether experiences within those settings are supporting feelings of inclusion for those with disabilities.

In the midst of this controversy of terms, researchers and practitioners alike have offered up best practices and strategies to promote ‘inclusion’ in PE settings. Even within this body of work, however, the definition of this term is inconsistent. Many best practice articles define inclusion as a placement (i.e., integration) and indicate that the strategies laid out will lead to the instructor successfully teaching a diverse group of students at one time (Nagro et al., 2016; Williston, 2017). The authors of an ‘inclusion’ rating scale for PE on the other hand, first identify inclusion as a school-wide practice where students with disabilities are educated in general education settings (i.e., integration), but later describe inclusion as a feeling the students with disabilities themselves ascribe to their experiences within the PE class (Lieberman, Brian et al., 2019). This, inherently, is confusing, given that the rating scale itself is observational, and does not take into consideration the perspectives of the students. Of concern is that none of these practices or strategies are evidence-based. By referring to these strategies as best practices and promoting their use by physical educators without having data to support their benefits, it is possible that students with disabilities may be unintentionally harmed. More research is needed that investigates the experiences of students with disabilities in integrated PE settings to either support or refute the use of any practices that are identified as ‘inclusive’. That is, research is necessary that examines whether these ‘inclusive’ strategies can help influence feelings associated with inclusion (i.e., acceptance, belonging, value) among those with disabilities from their embodied, first-person perspectives.

Traditionally, the majority of research have instead investigated the notion of ‘inclusive’ or integrated PE from the perspectives of stakeholders such as parents (An & Hodge, 2013; Mudekunye & Ndamba, 2011; Perkins et al., 2013), peers without disabilities (Grenier et al., 2014; McKay et al., 2015; Reina et al., 2019), and teachers (An & Meaney, 2015; Doulkeridou et

al., 2011; Morley et al., 2005; Qi et al., 2016; Wang et al., 2015). When research is conducted or strategies for 'inclusion' are developed without the voices of those with disabilities, as they historically have been, researchers and PE professionals are essentially assigning meaning for these students, rather than allowing it to emerge (Ashby, 2011). In recent years, however, emphasis has been on conducting research about integrated PE classes *with* rather than *on* students with disabilities (Haegele & Sutherland, 2015). In doing so, researchers are able to gain more understanding about the subjective experiences that students with disabilities have in integrated PE classes (Spencer-Cavaliere & Watkinson, 2010) and physical activity settings outside of school contexts (Coates, 2011), in alignment with the conceptualization of inclusion that has been adopted for this dissertation. This understanding may then provide an opportunity to facilitate best practices for these students (Healy et al., 2013) in a way that is evidence based, or grounded in research.

The literature has shown that generally, students with disabilities are not receiving the PE experiences that they deserve (Coates & Vickerman, 2008). Studies that have investigated the experiences of students with disabilities have commonly found that participants have encountered discriminatory attitudes from peers and teachers (Coates, 2011; Fitzgerald & Stride, 2012; Hilderly & Rhind, 2012; Svendby & Dowling, 2012; Wang, 2019), restricted participation due to lowered expectations and inappropriate or nonexistent modifications (Bredahl, 2013; Goodwin & Watkinson, 2000; Hilderly & Rhind, 2012; Wang, 2019), and a perceived lack of training on behalf of the PE staff (Wang, 2019). These negative experiences in PE have led to many students with disabilities' withdrawal and decreased interest in PE activities moving forward (Coates, 2011; Fitzgerald & Stride, 2012).

Research examining the experiences of students with orthopedic impairments in integrated PE classes is even more scarce, with only four completed studies to date. Further, to the researcher's knowledge, none of these studies have taken place in the United States. The limited literature that does exist echoes the findings in broader disability literature. Internationally, students with orthopedic impairments have reported feelings of being segregated or excluded from their peers without disabilities in their PE classes (Tanure Alves et al., 2020), social isolation (Goodwin & Watkinson, 2000), and a physical lack of access to PE settings (i.e., no ramp or lift to enter the gymnasium; Li & Chen, 2012). For example, Goodwin (2001) examined the perspectives of students with orthopedic impairments toward their peers in integrated PE classes in Canada and discovered that the type of help that peers offered greatly impacted the quality of experience for the students with disabilities. Consensual and caring help fostered feelings of dignity, autonomy, and self-esteem for students with disabilities, whereas incompetent or interfering help resulted in a loss of independence and threatened self-esteem (Goodwin, 2001). Further research is needed not only to expand this literature base, but also to investigate the experiences of students with orthopedic impairments in the United States.

Statement of the Problem

Students with disabilities are being educated in general PE classes with their same aged peers more so than ever before (GAO, 2010). Unfortunately, many students with disabilities have reported feeling segregated or excluded during these integrated PE classes (Bredahl, 2013; Fitzgerald, 2012; Goodwin & Watkinson, 2000; Tanure Alves et al., 2020). To date, little is known about how those with orthopedic impairments experience integrated PE, as no prior research on the perspectives of students with orthopedic impairments toward PE has been conducted in the United States. In addition, while a plethora of strategies are promoted as

promoting ‘inclusion’, very few ‘inclusive’ strategies have been problematized. The studies in this dissertation aimed to further examine the perspectives of students with orthopedic impairments toward integrated PE classes, as well as whether the utilization of any particular strategies or practices that have contributed to the students’ feeling more or less included.

Purpose of the Studies

The author has adopted a multiple-article format for this dissertation. As such, each study had its own purpose.

- The purpose of the first study was to explore the embodied experiences of students with orthopedic impairments in integrated PE classes.
- The purpose of the second study was to examine how students with orthopedic impairments experience strategies identified in the literature as being ‘inclusive’.

Research Questions

Study 1

1. What are the experiences of the students with orthopedic impairments in integrated PE classes?
2. What meaning do participants ascribe to their experiences in integrated PE classes?

Study 2

1. What experiences have students with orthopedic impairments had with strategies intended to promote ‘inclusion’ in integrated PE classes?
2. Have strategies identified as promoting ‘inclusion’ informed feelings of inclusion for students with orthopedic impairments in integrated PE classes?

Significance of the Studies

The first study further developed the knowledge base on how students with orthopedic impairments experience integrated PE classes in the United States. The results of this study, when considered with the experiences of students with orthopedic impairments described in the literature, sheds some light on what PE is like for students with orthopedic impairments. In turn, the findings may help PE professionals develop more effective strategies for working with students with orthopedic impairments. The second study expanded researchers' understandings of feelings of inclusion for students with orthopedic impairments in integrated PE settings. Being a novel study that does not yet exist in the literature, this study had potential to give researchers and PE professionals some insight on how students with orthopedic impairments experience strategies intended to promote 'inclusion', and the degree to which these strategies help enhance the 'inclusiveness' of these settings.

Delimitations

The following were delimitations to this study:

1. Criteria for inclusion were purposefully limited to only include students who identify as having orthopedic impairments who attend integrated PE classes in a public K-12 school setting.
2. Participants were selected only if they were between the ages of 10 and 17 years old, to allow the researcher to capture both elementary and secondary PE experiences.
3. Social media platforms, email, and personal contacts of the researcher were used to recruit participants, which limited the sample to those who were active on social media, had regular internet access, or who were personally motivated to participate.

4. Interviews were conducted in the English language, therefore only participants who were fluent in the English language were able to participate.

Limitations

The following were limitations to this study:

1. Participants were from the United States, limiting the transferability of results to other parts of the world.
2. The 'inclusive' strategies identified and inquired about in the interviews were derived from internet blog posts, practitioner-based textbooks, and articles in PE practitioner journals. It is possible that other strategies that the author was not aware of are in use in schools in the United States and warrant further examination.

Definitions of Terms

Adapted Physical Education: "Physical education which has been adapted or modified, so that it is as appropriate for the person with a disability as it is for a person without a disability" (Adapted Physical Education National Standards [APENS], 2008, paragraph 1).

Evidence-based: Educational practices that have been supported by the findings of multiple valid and reliable research studies as being in the best interest of the students involved (Horner et al., 2005).

Hermeneutic: The concept that endless levels of interpretation might be needed to find the genuine objective nature that lies beneath subjective experiences (Kafle, 2011).

Idiographic: Focused on the individual and attending to the detail of particular cases (Shinebourne, 2011).

Inclusion: A subjective experience associated with feelings of belonging, acceptance, and value (Stainback & Stainback, 1996), requiring "investigation from the perspective of the child who is 'to be included'" (Spencer-Cavaliere & Watkinson, 2010, p. 275)

Integration/integrated PE classes: PE classes that include students with and without disabilities being educated in the same physical setting (Haegele, 2019).

Interpretative phenomenological analysis: A qualitative research approach that is used to understand the subjective meaning that individual participants attribute to events or experiences by exploring how they make sense of their personal and social world (Smith & Osborne, 2008).

Orthopedic impairment: Used interchangeably in literature with the phrase "physical disability", describing students that may have any number of disabilities affecting their physical mobility, such as a congenital anomaly, impairment caused by disease (i.e., poliomyelitis), cerebral palsy, spina bifida, or spinal cord injury (IDEA, 2004)

Phenomenology: A qualitative method that focuses on the meaning and way in which meaning arises in the human experience (Langdridge, 2007).

Physical education: The "development of physical and motor fitness, fundamental movement skills and patterns, skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports)" (IDEA, 2004, 34 C.F.R.300.39[b][2]).

Subjective experience: The social view of oneself and one's experiences (Nicholls, 1984).

CHAPTER II: REVIEW OF LITERATURE

The purpose of this chapter is to review literature that is relevant to this inquiry. First, the author summarizes the importance of physical education (PE), as well as the need for researchers to conduct research *with* rather than *on* students with disabilities. Next, an overview of three literature reviews pertaining to this topic is provided, followed by a discussion of each of the individual articles. Then, the author presents a summary of research studies examining perspectives toward inclusion in PE by students with disabilities, followed by a discussion of strategies identified in the literature as enhancing 'inclusion'. Following this, the author will unpack the interpretative phenomenological analysis (IPA) research approach. Finally, limitations in the current body of literature and the contribution of this inquiry will be identified.

PE for Students with Disabilities

In 2005, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) stated that students cannot be disqualified from receiving instruction in general educational settings based on their disability status alone. This statement is consistent with assertions made by scholars, that integrated education is "the right thing to do" (Yell, 1995, p. 389", and a "moral imperative" (Bricker, 1995, p. 180) that demonstrates political correctness in regard to basic human rights (Bricker, 1995), forming "the ethical substrate of educational rhetoric" (Makopoulou et al., 2019, p. 1). Given the stance that integrated education is the inarguably superior moral choice (Bricker, 1995), it is not surprising that educational scholars are promoting the belief that all students should be integrated into general educational settings rather than receiving instruction in self-contained placements (Stainback et al., 1994; Wilson et al., 2019). Highlighting this, the percentage of students with disabilities being educated through general educational means has grown dramatically (Heck & Block, 2019; Obrusnikova & Block,

2020). For example, in the United States, 14% of the total public-school population received special education services under IDEA (2004) during the 2017-2018 school year (National Center for Education Statistics, 2019), and for most of these students, PE instruction was provided in general PE settings alongside their peers without disabilities (GAO, 2012).

PE is among the first school-based settings in which students with disabilities are educated in the same integrated physical space as their peers without disabilities (Alquraini & Gut, 2012). The term *integrated* is used purposely here to represent a physical space in which students with and without disabilities are educated together (Haegele, 2019). While some PE professionals have considered this combining of students with and without disabilities into the same physical class space as *inclusion* (An & Meaney, 2015; Doulkeridou et al., 2011; Hilderley & Rhind, 2012; Qi et al., 2016; Reina et al., 2019), others consider inclusion as a philosophy related to the experiences that students with disabilities have within the socially constructed PE environment (Hutzler et al., 2005; Morley et al., 2005; Spencer-Cavaliere & Watkinson, 2010; Svendby & Dowling, 2013; Wang, 2019). Given the inconsistencies that exist in the literature with regard to this terminology, it is important for scholars to identify their position on inclusion within their manuscripts (Graham & Slee, 2008), thus revealing the conceptualization that has guided their work. For the purposes of this dissertation, Stainback and Stainback's (1996) interpretation of inclusion as a subjective experience associated with feelings of belonging, acceptance, and value was adopted. According to Spencer-Cavaliere and Watkinson (2010), this interpretation of inclusion supports the amplification of the voices of persons with disabilities, as inclusion is understood as a "subjective experience [requiring] investigation from the perspective of the child who is 'to be included'" (p. 275). Thus, throughout this document, the term integration is used intentionally to describe students with and without disabilities being educated

in the same physical spaces (Haegele, 2019), and inclusion is used to describe the subjective experiences described by the participants (Spencer-Cavaliere & Watkinson, 2010) associated with feelings of belonging, acceptance, and value (Stainback & Stainback, 1996). This differentiation of terms allows researchers to problematize experiences within integrated settings and examine whether experiences within those settings are supporting feelings of inclusion for those with disabilities.

According to the Society of Health and Physical Educators (SHAPE America; 2013), the goal of PE is to produce physically literate individuals that have the ability, confidence, and desire to be active throughout the lifespan. For years, PE scholars have claimed that quality PE provides benefits to students in the affective, psychomotor, and cognitive domains (Bailey et al., 2009). The psychomotor domain addresses the physical skills (e.g., skipping, jumping, throwing, catching), the cognitive domain involves the knowledge (e.g., body systems, nutrition content, game tactics and strategies) gained through PE instruction (Lounsbery & McKenzie, 2015), and the affective learning domain encompasses "students' attitudes, beliefs, values, and underlying emotions as they relate to the knowledge and skills they are acquiring" (Mottet & Beebe, 2006, p. 8). More specifically, affective benefits associated with PE can include increases in motivation, positive emotional responses (i.e., enjoyment, satisfaction), enhanced self-concept, and increased resilience (Teraoka et al., 2020). To garner associated benefits, SHAPE America (2013) recommends that every student receive PE instruction every day throughout their K-12 education, totaling at least 150 minutes per week in elementary school, and at least 225 minutes per week in middle and high school. According to SHAPE America (2013), a quality PE program provides appropriate instruction leading to meaningful learning opportunities for all

students, and should not be confused with physical activity, which solely describes the act of moving one's body, regardless of the intent or instructional outcomes.

In addition to the guidelines set forth by SHAPE America (2013), the Individuals with Disabilities Education Act (IDEA; 2004) mandates that all students with disabilities in the United States (US) receive instruction in PE as a part of a free and appropriate public education. IDEA (2004) defines PE as the "development of physical and motor fitness, fundamental movement skills and patterns, skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports)" (34 C.F.R.300.39[b][2]). To date, there has been little research conducted that has investigated the specific benefits of PE for students with disabilities. When reviewing the literature on inclusion in PE however, Qi and Ha (2012) deduced that experiences in the affective domain, specifically with regard to peer interactions, may be the most salient. These social benefits seemed to occur when students with disabilities had supportive, cooperative, and respectful interactions with their peers, that lead to the development of meaningful relationships where equal status was achieved for both parties (Qi & Ha, 2012).

Perspectives of Students with Disabilities toward PE

In this dissertation, the perspectives of students with disabilities, specifically those experiencing orthopedic impairments, are central to our understanding of the meaning of experiences in PE. In this section, the author provides an account of research that examined PE experiences from the perspectives of those with disabilities, including a summary of three completed literature reviews, as well as a narrative summary of themes that consistently emerged across this area of inquiry.

Historically, most research regarding PE or physical activity for students with disabilities has been conducted without the input of students with disabilities themselves (Haegele et al., 2020). Rather, scholars often investigated PE for students with disabilities from the perspectives of stakeholders such as parents (An & Hodge, 2013; Mudekunye & Ndamba, 2011; Perkins et al., 2013), peers without disabilities (Grenier et al., 2014; McKay et al., 2015; Reina et al., 2019), and teachers (An & Meaney, 2015; Doulkeridou et al., 2011; Morley et al., 2005; Qi et al., 2016; Wang et al., 2015). Parents and teachers reported having favorable feelings towards the integration of students with disabilities into general PE classes, citing perceived positive social outcomes as the greatest benefit (Doulkeridou et al., 2011; Mudekunye & Ndamba, 2011), but have also expressed varying levels of concern over the concept of integration dependent upon the type of disability a student may have (Morley et al., 2005). Students without disabilities' feelings about PE and physical activity have shown to vary based upon the degree with which they had interactions with peers with disabilities previously, and their level of experience with disability sport (Grenier et al., 2014; McKay et al., 2015; Reina et al., 2019).

When research is conducted and presented that focuses on the viewpoints of stakeholders, where focus is *about* individuals with disabilities, rather than *with* them, the emphasis moves from the voice of the individual with a disability to the voice of the stakeholder (Ashby, 2011). When researchers focus on voices other than those of the students themselves, they limit the understanding of the phenomena these students experience (Spencer-Cavaliere & Watkinson, 2010), as well as the opportunity to facilitate best practices for these students (Healy et al., 2013). In contrast, engaging directly with individuals with disabilities allows them "to make oneself heard and to have ones [*sic*] experiences and perspectives available to others" (Ashby, 2011, p. 2). Thus, it is only through conversation with students with disabilities that their own

voices can emerge (Coates, 2011). Listening to the voices of students with disabilities about their educational experiences, rather than those of *others*, can lead to important discoveries that inform pedagogical practice (Seale, 2017). For example, examining the perceptions that students with disabilities hold about PE can provide insight into the ways they experience PE lessons (Goodwin & Watkinson, 2000), as well as how those experiences translate to physical activity participation outside of school contexts (Coates, 2011).

To date, three qualitative literature reviews have been conducted examining a total of 25 studies that explored the perspectives of students with disabilities in PE (Coates & Vickerman, 2008; Haegele & Sutherland, 2015; Holland & Haegele, 2021). In the first review of its kind, Coates and Vickerman (2008) selected and analyzed seven studies published between 1997 and 2007. They found that six key themes that were recurring within the literature: (a) experiences with PE; (b) experiences with PE teachers; (c) discrimination by others; (d) feelings of self-doubt; (e) barriers to inclusion, and (f) empowerment and consultation. Generally, the research reviewed in this paper demonstrated that students with disabilities enjoyed PE when they experienced full, meaningful participation, and esteem raising interactions with their teachers and peers. Enjoyment of PE was constrained however, by discrimination, environmental and material barriers, and inadequate or inappropriate modifications. From these themes, Coates and Vickerman concluded that (a) the experiences of students with disabilities in PE were restricted by a lack of training for PE teachers and support staff, (b) PE curricula were not sufficiently tailored to the unique needs of students with disabilities, and (c) that students with disabilities were not receiving the PE experiences that they deserved.

Haegele and Sutherland's (2015) review of qualitative inquiries regarding the perspectives of students with disabilities toward PE included 13 studies published between 1995

and 2014, two of which were included in the original review by Coates and Vickerman (2008). Haegele and Sutherland (2015) found that (a) physical educators were central to the quality of experiences in PE, and (b) meaningful learning experiences were constructed through relevant and appropriate modifications and accommodations. In addition, and importantly, Haegele and Sutherland's review supported prior findings by Coates and Vickerman, whereby students with disabilities reported being discriminated against by teachers and typically developing peers in the studies included in each review.

In an update to the 2015 literature review by Haegele and Sutherland (2015), Holland and Haegele (2021) selected and reviewed seven articles published between 2014 and 2019. Three thematic clusters emerged through analysis: (a) perspectives toward physical educators, (b) perspectives toward PE peers, and (c) perspectives toward barriers to successful participation. Findings from this review supported the notion that students with disabilities may have positive experiences in PE if offered appropriate modifications and accommodation and are provided with increased kind and supportive interactions with staff and peers. Holland and Haegele also assessed each article for quality indicators, which had not been done by Coates and Vickerman (2008) or Haegele and Sutherland (2015). Holland and Haegele identified that, among other things, most studies lacked a positionality statement about the researchers, and recommended that future studies strive to include all quality indicators as assigned to help support the credibility of any included results.

All three reviews supported the notion that students with disabilities have reported feeling discriminated against by teachers and peers without disabilities in K-12 PE. Feelings of being excluded, feelings of segregation, and a lack of appropriate modifications to the PE curriculum have typified the experiences of students with disabilities in PE settings. Further, students with

disabilities have encountered environmental and architectural constraints that have prevented them from being full participants in their PE classes. The following section discusses the literature included in these reviews that are relevant to this inquiry. Much of the research conducted thus far that examined the perspectives of students with disabilities toward PE did not included a sample from one specific disability population, but rather a heterogenous group of participants broadly defined as 'having a disability'. There have been a small number of articles published, however, including students with other health impairments (*n*=1), visual impairments (*n*=2), autism spectrum disorder (ASD; *n*=4), and orthopedic impairments (*n*=4). Interestingly, regardless of the specific disability population, results seemed to center around three consistent themes: perspectives toward teachers, perspectives toward peers, and facilitators and barriers to successful PE participation. The specific experiences portrayed in these themes by each group, however, have been more nuanced.

Perspectives about PE Teachers

It has been well documented that teachers are central to the quality of a student's experience in PE (Blagrave, 2017; Block & Obrusnikova, 2007; Haegele & Sutherland, 2015). For example, students with disabilities are more likely to note that they enjoyed their PE classes if they had a positive view of their PE teacher (Yessick et al., 2019). For some students with disabilities, this positive view resulted from feelings of being supported and having adequate help from their PE teachers (Seymour et al., 2009; Wang, 2019). For others, positive associations with PE developed when rapport was established with their teachers, characterized by interactions such as shaking hands (Yessick et al., 2019), smiling, and joking together (Blagrave, 2017). These interactions led to feelings of mutual respect, which ultimately resulted in students with disabilities' enjoying and being excited about their PE classes (Yessick et al., 2019).

In contrast, many students with disabilities reported negative associations with PE, characterized by feelings of exclusion, isolation, and segregation resulting from their PE teachers' actions (Bredahl, 2012; Fitzgerald, 2012). For example, in a study exploring experiences of students with disabilities in PE in the United Kingdom, participants reported feeling frustrated with being segregated when removed from the class by their teachers when they were struggling with the large group activities (Fitzgerald, 2012). In reviewing this finding, the author questioned why these teachers did not instead look to the content and delivery of their PE curriculums to determine whether changes could be made to support their students with disabilities. The resulting physical segregation from peers, rather than being offered activity modifications and accommodations, resulted in negative associations with PE overall (Fitzgerald, 2012), an experience that was echoed by participants in several other studies (Tanure Alves et al., 2018). For example, Tanure Alves and colleagues (2018), found that students with visual impairments in Brazil reported feeling frustrated with being segregated when they were given alternative activities to participate in away from their PE peers, and feelings of exclusion when they were not given a PE activity to participate in at all. This type of segregation seems to be a common occurrence in PE for students with visual impairments in the United States as well, as evidenced by the findings of Haegele and Buckley (2019) who discovered that their participants were engaging in alternate activities in PE. One participant in particular, was required to report to the weight room and run on a treadmill under the supervision of a non-PE school staff member, rather than participating alongside his peers in PE class (Haegele & Buckley, 2019).

In addition to segregated or exclusionary instructional practices, students with disabilities also reported being ignored by their PE teachers (Bredahl, 2013; Fitzgerald & Stride, 2012) or experiencing outright verbal discrimination (Coates, 2011; Fitzgerald & Stride, 2012). For

example, participants with disabilities in a study by Bredahl (2013) reported that after they had self-advocated and offered suggestions to their PE teachers in an effort to increase their participation, they felt as though their input was ignored, leading to further feelings of exclusion and of being a spectator rather than a meaningful participant in their PE classes. For other students with disabilities, feelings of being ignored in their PE classes emerged simultaneously with feelings of being invisible during large group activities (Fitzgerald & Stride, 2012). In these instances, the students were not excluded or segregated, but instead were not acknowledged at all.

Possibly most concerning were the reports of discrimination that some students with disabilities experienced. For example, while investigating the experiences of students with intellectual disabilities in PE in the United Kingdom, Coates (2011) discovered that participants had experienced verbal discrimination from PE staff with regard to their weight status. Participants in another study in the United Kingdom reported similar experiences, as they had experienced discrimination based on others' diminished perceptions of their motor competence (Fitzgerald & Stride, 2012). In both of these instances, participants reported feeling undervalued, and less motivated to continue participating in PE activities in the future (Coates, 2011; Fitzgerald & Stride, 2012).

Perspectives about Peers

Research has shown that peer experiences for students with disabilities in PE fall along a similar continuum as those with teachers, with some participants reporting positive peer experiences (Seymour et al., 2009; Spencer-Cavaliere & Watkinson, 2010), and others reporting negative peer experiences (Bredahl, 2013; Fitzgerald & Stride, 2012; Haegele & Buckley, 2019; Healy et al., 2013; Spencer-Cavaliere & Watkinson, 2010, Tanure Alves et al., 2018). Research

showed that students with disabilities were less likely to make friends outside of school than their peers without disabilities (Seymour et al., 2009), further highlighting the importance of affective outcomes and positive peer experiences for students with disabilities in PE. Potential positive peer experiences in PE might include meaningful interactions with those who were kind, helpful, and trustworthy, who dedicated time to the relationship, who engaged in effective conflict resolution skills, and/or those who demonstrated acceptance and a recognition of disability within the context of the peer relationship itself (Seymour et al., 2009). When these positive peer interactions lead to feelings of friendship, students with disabilities tended to experience an authentic opportunity to gain entry to play with their peers, fostering feelings of inclusion in the activity and within the class as a whole (Spencer-Cavaliere & Watkinson, 2010). Having these types of positive peer interactions and friendships in PE can lead to a decrease in feelings of aloneness or isolation experienced by students with disabilities, regardless of the degree of access they experience to the curriculum and instructional spaces (Tanure Alves et al., 2018).

Conversely, feelings of not being supported by peers (Fitzgerald & Stride, 2012), participating alongside peers who refused to engage with students with disabilities (Bredahl, 2013; Haegele & Buckley, 2019; Tanure Alves et al., 2018), and experiences of bullying or teasing (Haegele & Buckley, 2019; Healy et al., 2013; Spencer-Cavaliere & Watkinson, 2010, Tanure Alves et al., 2018), all tend to lead to less favorable perspectives toward peers, friendship building in PE, and PE programs themselves. Interestingly, feelings of exclusion emerged not only when students with disabilities were denied access to class activities, but also when access was facilitated by teachers instead of peers (Spencer-Cavaliere & Watkinson, 2010; Wang, 2019). Students with disabilities in both Canada (Spencer-Cavaliere & Watkinson) and China

(Wang, 2019) described feeling alone and ignored even while participating in their PE classes because they knew their peers are only engaging with them because it was a requirement.

Students with visual impairments (Bredahl, 2013; Haegele & Buckley, 2019; Tanure Alves et al., 2018) and those with ASD (Blagrave, 2017; Healy et al., 2013) have frequently reported being verbally teased by their peers without disabilities, leading to feelings of social isolation and a lowered desire to attend or participate in their PE classes. For instance, in a study investigating the experiences of Irish students with ASD in PE, Healy and colleagues (2013) found bullying encounters centered on disability status alone, and that peers without disabilities either made fun of the participant's disability or drew negative comparisons between the student with the disability and his or her peers. Further, students with ASD (Healy et al., 2013) and visual impairments (Bredahl, 2013; Haegele & Buckley, 2019) both experienced being picked last or excluded from group activities when their peers had a diminished perception of their motor competence. For example, a Brazilian student with a visual impairment recalled a time when their sighted peers told them that they couldn't play together because they couldn't see, and that the sighted peers feared the student with a disability might make their group less successful (Tanure Alves et al., 2018). Peers having lowered expectations or diminished perceptions of students with disabilities' motor competence is not entirely unique to students with ASD or visual impairments and occurs across geographical locations. In three separate studies investigating the experience of students with various types of disabilities, researchers in Canada (Spencer-Cavaliere & Watkinson, 2010), the United Kingdom (Fitzgerald & Stride, 2012) and China (Wang, 2019) all found that participants with disabilities had been targeted with teasing or taunting based on their disability status and perceived lack of motor competence. One participant in Wang's (2019) study summed these experiences up by saying, "they think of me as

an abnormal boy" (p. 256), while another in Fitzgerald and Stride's (2012) study shared feeling like "a clown, a spectacle to be watched and laughed at, and the center of attention for all the wrong reasons" (p. 287).

Perspectives about Challenges in PE

In addition to challenges associated with teachers and peers, the literature described additional challenges that students with disabilities have encountered in PE. For many students with disabilities, successful participation in PE was hindered by the PE curriculum and instruction itself (Coates, 2011; Fitzgerald, 2012; Fitzgerald et al., 2003; Moola et al., 2011; Shields & Synnot, 2016), concerns over safety or fear of injury (Bredahl, 2013; Healy et al., 2013), disability status (Fitzgerald & Stride, 2012; Healy et al., 2013; Moola et al., 2011; Wang, 2019), and inaccessible or distracting PE environments (Blagrave, 2017; Healy et al., 2013; Wang, 2019; Yessick et al., 2019). PE curricular and instructional challenges included an overemphasis on fitness and weight loss (Coates, 2011), limited meaningful application to physical activity outside of school (Fitzgerald et al., 2003), inadequate breaks for rest and hydration (Moola et al., 2011), and ineffective systems of communication between teachers and parents (Shields & Synnot, 2016). These inappropriate practices often lead to safety concerns for students with disabilities as well (Bredahl, 2013; Healy et al., 2013), which was clearly illustrated in the story shared by a Norwegian student with a visual impairment in the 2013 Bredahl study. She shared a concern over her own personal safety during a football unit with her teacher, given that she was unable to see the ball or other students. Her teacher replied that the curriculum required all students to play, and forced her to participate without any accommodations, resulting in increased fear and discomfort throughout the unit, and an eventual decrease in her PE grade (Bredahl, 2013). When the PE curriculum and subsequent instructional

practices are not designed for students with disabilities, it can lead to their removal or voluntary withdrawal from the class, when instead, teachers should look to a revision of the practices in place (Fitzgerald, 2012).

Instructional and curricular challenges, however, are concerns that PE teachers and professionals should be able to overcome, whereas some disability-related or environmental challenges might be more difficult. Students with various types of disabilities have described their disability status as one of their greatest challenges in PE, mostly citing a fear of not being able to keep up with their peers during activities (Fitzgerald & Stride, 2012; Healy et al., 2013; Moola et all., 2011; Wang, 2019). For example, a student in the United Kingdom described the frustration that this elicited by the fact that "my body moves in different ways" (Fitzgerald & Stride, 2012, p. 287) than their peers without disabilities. Similarly, for a student in Canada with congenital heart disease, the disappointment and frustration with their disability-imposed limitations led to them feeling "like a loser" (Moola et al., 2011, p. 66).

Environmental concerns were the final category of hindrance to successful PE experiences described in the literature. These concerns arose regarding both permanent (Wang, 2019) and temporary (Blagrave, 2017; Healy et al., 2013; Yessick et al., 2019) environmental constraints. For example, in a study by Wang (2019), Chinese students with disabilities described a lack of ramp or lift access in the gymnasium and on the track, an architectural challenge that may require more forethought and time to remedy than the sensory distractions experienced by others. In other studies, some students with ASD have recalled that the lights, noise level, temperature, and quality of ground surface all posed challenges when attempting to engage in PE lessons (Blagrave, 2017; Healy et al., 2013; Yessick et al., 2019). Sensory challenges may lead to a withdrawal or voluntary isolation for students with ASD, as they seek a more comfortable

experience (Yessick et al., 2019). One participant in a study by Yessick and colleagues (2019) exploring the experiences of students with ASD in PE in the United States, described self-selecting solo play during PE because it was less noisy and he was able to focus better (Yessick et al., 2019). While PE teachers have no control over the disability status of their students, they can certainly reflect on the effectiveness of their curriculum and instructional strategies and advocate for more inclusive spaces. Many of the challenges preventing students with disabilities from experiencing meaningful participation could be mitigated with some effort on the part of PE professionals.

Summary

Teacher and peer interactions have been central to the quality of experience in PE for students with disabilities. Positive, supportive relationships with both parties have demonstrated a potential to lead to favorable feelings towards PE for students with disabilities, however the bulk of the literature instead describes experiences of exclusion, segregation, and discrimination. Students with disabilities have chronically been made to feel like outsiders and have experienced diminished expectations and perceptions of motor competence by both their PE teachers and peers. Likewise, instructional and environmental restrictions, such as a lack of appropriate activity modifications and a lack of accessible instructional spaces, compound this issue. Regrettably, during the 20-year period during which this research occurred, little to no discernable improvements have been made to increase the quality of experiences in PE for students with disabilities.

Perspectives of Students with Orthopedic Impairments

This section is dedicated to taking a deeper look at research that specifically explored the perspectives of individuals with orthopedic impairments toward PE. For the purposes of special

education qualification in the United States, students with physical disabilities often fall into the category of Orthopedic Impairment (IDEA, 2004). Students who qualify for services under this category may have any number of disabilities affecting their physical mobility, such as a congenital anomaly, impairment caused by disease (i.e., poliomyelitis), cerebral palsy, spina bifida, or spinal cord injury (IDEA, 2004). It is important to note that students with orthopedic impairments may present very differently from one another based on their own unique circumstances, with some having more or less 'visible' characteristics than another. For example, one student with an orthopedic impairment may use a wheelchair for mobility, another may ambulate independently with only a slight limp, and yet another may have full, typical use of their legs and have mobility differences in their arms only. In the literature, the terms orthopedic impairment and physical disabilities are often used interchangeably; however, orthopedic impairment will be used for the purposes of this inquiry to remain consistent with the education system in the United States.

To date, just four studies have focused solely on the experiences of students with orthopedic impairments in PE, none of which took place in the United States (Goodwin, 2001; Goodwin & Watkinson, 2000; Li & Chen, 2012; Tanure Alves et al., 2020). In these studies, the experiences of students with orthopedic impairments internationally were somewhat similar to those reported by students with other types of disabilities. For example, in a study investigating the physical activity experiences of students with cerebral palsy, participants reported being motivated to participate in PE activities as a result of encouraging PE teachers (Li & Chen, 2012), but the majority of references to teacher-student experiences in the literature for students with orthopedic impairments has had a far more negative tone (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020). Those who had negative experiences with their teachers in PE either

participated in non-meaningful segregated activities during their PE classes (Tanure Alves et al., 2020) or experienced social isolation, potentially due to the perceived lack of teacher support or lowered expectations (Goodwin & Watkinson, 2000). To date, only one study has focused on students with orthopedic impairments' perspectives towards peers in integrated PE, and both positive and negative peer interactions were reported (Goodwin, 2001). Environmental challenges were perhaps most salient for students with orthopedic impairments, as a lack of physical access such as the absence of a ramp or lift most impacts this group of students (Li & Chen, 2012). To the contrary, positive PE outcomes were also discussed, namely that students with orthopedic impairments felt most successful in PE when they felt like a meaningful participant in their class (Goodwin & Watkinson, 2000). Participants felt that activities were meaningful when they were able to reap the same benefits from the program as their peers without disabilities. In this section, I will review research that specifically examined the lived experiences of individuals with orthopedic impairments in integrated PE classes.

The first study to examine the perspectives of students with orthopedic impairments, a hermeneutic phenomenological study by Goodwin and Watkinson (2000), utilized one-on-one and focus group interviews to investigate the perspectives of nine Canadian students toward integrated PE classes. Two themes emerged concerning the participants' experiences in integrated PE: good days, and bad days. Bad days were characterized by events that facilitated social isolation, a questioning of participant competence, and restricted participation. Social isolation took three forms: rejection, neglect, and feeling like an object of curiosity. Furthermore, questioning of competence and restricted participation both occurred when peers and/or teachers either lowered expectations, or when an insufficient level, or total lack of, support was offered. This questioning of competence often led to exclusion or restricted participation, whereas other

times, restricted participation resulted from physical barriers and inaccessible play areas. In contrast, good days were described as days that fostered a sense of belonging, shared benefits, and skillful participation. Whereas participants were excluded on bad days, positive experiences resulted from peer motivation, inclusion, and support. Skillful participation and shared benefits were reported when participants felt competent participating in meaningful activities alongside their peers. Participants felt activities were meaningful when they were able to reap the same benefits from the goals of the program as their peers without disabilities. These feelings were enhanced when they were able to demonstrate their skills and knowledge to their peers. Goodwin and Watkinson concluded that interpersonal relationships play a key role in determining the quality of experiences for students with disabilities in PE and emphasized the need for continued research on the experiences of students with disabilities in PE.

Using phenomenological analysis, Goodwin conducted a second study in 2001, with 12 Canadian students with orthopedic impairments to further explore experiences in PE. She utilized interviews, document analyses, and reflective field notes to describe how students with disabilities perceived help in PE. For this study, help was operationally defined as assistance from peers or classmates, with an emphasis on peer tutors. Two major themes emerged from data collection: self-supporting peer interactions and self-threatening peer interactions. Self-supporting peer interactions were positive in nature and included peer interactions that provided instrumental, caring, and consensual support. Instrumental support occurred when peers assisted in modifying activities for the student with the orthopedic impairment, caring support contributed to positive experiences in PE when peers were attentive to the feelings and self-esteem of students with orthopedic impairment, and consensual support was perceived when peers asked first before providing assistance. Consensual support ensured students with

orthopedic impairments maintained some control, dignity, and autonomy in the exchange. In contrast, self-threatening peer interactions reflected a loss of independence, a threat to self-image, or an attempt to provide help that was reckless or interfering. Interfering help and help that resulted in a loss of independence included situations when peers imposed unwanted help or moved the participants' wheelchairs for them when it was undesired. Help that threatened self-esteem occurred when peers had lowered expectations for students with orthopedic impairments based solely on the diagnosis, whereas incompetent help was perceived to be good intentioned, but with poor execution. Incompetent help often occurred when peers appeared to lack knowledge on how to help effectively. Goodwin concluded that participants were generally accepting of help from peers, provided that help occurred only when solicited, and that students with orthopedic impairments maintained autonomy over the situation.

In a qualitative study investigating the physical activity experiences of students with cerebral palsy in Hong Kong, Li and Chen (2012) held face-to-face, semi-structured interviews with eight students. Four themes emerged from data analysis: sedentary behaviors, enjoyment, motivations, and barriers. Participants reported preferring to participate in activities such as reading, watching television, and surfing the internet, rather than those involving physical activity; however, most associated physical activity with joy and happiness. While they reported low levels of physical activity outside of school, participants described being motivated to participate in PE by the encouragement of peers and PE teachers. Barriers to participation in PE included personal barriers such as fatigue or pain, instructional barriers such as a lack of activity modifications, and environmental barriers such as a lack of appropriate equipment. Li and Chen addressed the concern that sedentary behaviors may lead to secondary complications and

suggested that a need exists for qualified adapted physical activity experts to help combat some of these concerns.

Most recently, Tanure Alves and colleagues (2020) utilized semi-structured interviews to analyze PE practices from the perspective of seven participants with physical and motor disabilities in Brazil. Two themes developed through data analysis: separate is not equal, and disability as a barrier to PE class. In the first theme, the authors described how students either participated in non-meaningful segregated activities during their PE classes or in free play because the PE classes did not include structured activities for any of the students with disabilities. In either scenario, students with orthopedic impairments did not engage in any meaningful learning outcomes. Participants also discussed the role that their disability played as a barrier to their participation in physical activity during PE classes. For some students, this barrier existed due to feelings of decreased competence resulting from the existence of any physical limitations. For others, their disability brought on fear of injury when participating without appropriate modifications. The authors concluded that integrated PE in Brazilian schools needed to be rethought with regard to what it means to be included, and what supports might be necessary for it to be practiced effectively.

Summary

Internationally, students with orthopedic impairments reported feelings of being segregated or excluded by teachers and peers in their PE classes, social isolation, and a physical lack of access to PE settings. Specifically, peer interactions played a large role in the quality of experiences for students with orthopedic impairments in PE and have been shown to not only influence potential enjoyment of the class, but to increase the self-concept of students with disabilities. Based on the paucity of research located, further research is needed to expand this

literature base and to investigate the experiences of students with orthopedic impairments in the United States. As such, the purpose of Study 1 was to explore the embodied experiences of students with orthopedic impairments attending integrated PE classes in schools in the United States.

Inclusiveness of Integrated PE

Whereas Study 1 for this dissertation focused on exploring the embodied, lived experiences of students with orthopedic impairments in integrated PE classes in the United States, Study 2 problematized integrated PE spaces, as well as 'inclusive' PE practices, for students with orthopedic impairments. As noted earlier in this chapter, integrated PE refers to the physical space in which students are educated, whereas inclusion refers to the subjective experiences of acceptance, belonging, and value from the perspectives of those being included (Haegele, 2019; Spencer-Cavaliere & Watkinson, 2010; Stainback & Stainback, 1996). This conceptualization allows researchers to examine the inclusiveness of integrated PE for students with disabilities.

To date, just four studies have examined the inclusiveness of integrated settings from the perspective of persons with disabilities (Haegele, 2019; Haegele, Hodge et al., 2020; Haegele, Kirk et al., 2020; Spencer-Cavaliere & Watkinson, 2010). In the first study of its kind, Spencer-Cavaliere and Watkinson (2010) explored the perspectives of 11 Canadian students with disabilities toward the concept of 'inclusion' in PE. Three themes were identified using the interview data from this idiographic, exploratory, and descriptive study: gaining entry to play, feeling like a legitimate participant, and having friends. Gaining entry to play fostered the greatest feelings of being included when the students with disabilities were asked by peers to participate in play as opposed to engaging in play only after they requested access or

participation. Participants also attributed meaningful participation and feelings of legitimacy to feeling included, having an important role, or contributing to their team. Having friends in the activity was seen as a vital factor to feeling included, and participants associated not feeling included with teasing and limited peer engagement. The authors emphasized the need to pursue research on inclusion as a subjective experience from the perspective of students with disabilities rather than the perspective of researchers or practitioners.

A research group from Old Dominion University has published three papers examining the inclusiveness of integrated physical education classes from the perspectives of individuals with visual impairments. In the first study, Haegele (2019) provided a narrative clarifying the distinction between inclusion and integration, referencing Stainback and Stainback (1996) and Spencer-Cavaliere and Watkinson (2010). Haegele emphasized that inclusion was an educational philosophy promoting a sense of belonging, acceptance, and value, whereas integration was the placement where all students, regardless of disability status, were educated in the same setting. This clarification was followed by a non-fiction reflection of an adult male with a visual impairment about his experiences in integrated PE in the United States. This narrative described the participant's experiences with unwanted and condescending help from his peers during his PE classes; feelings of incompetency, low self-esteem, and of being on display during middle school PE; and the influence of his PE teacher's perception of his motor competence on his engagement during a middle school swim unit. These reflections were used to suggest that "integrated [PE] settings may not be providing inclusive experiences for students with disabilities" (Haegele, 2019, p. 394). The author did not suggest that integration be abandoned as a practice, but rather concluded that further discourse is necessary to understand the implications

of integrating all students as a general rule, rather than based on contextual variables in each individual case.

One year later, Haegele, Kirk, and colleagues (2020) conducted a qualitative descriptive study situated within the interpretivist research paradigm, investigating the "reflections of adults with visual impairments regarding the role that access plays in the inclusiveness of integrated [PE]" (p. 3) in the United States. Nine adults with visual impairments participated in a one-on-one, semi-structured telephone interview that followed an interview guide focused on their experiences in school-based PE. Three cascading themes were developed based on the data collection, concerning: (a) access to physical space, (b) access to activities within that space, and (c) access to meaningful participation within those activities. The themes were cascading in that the first informed the second, which then informed the final theme. Generally, results showed that participants frequently received PE instruction in a separate room potentially due to PE teachers who were ill-prepared to work with students with visual impairments, or to the PE teacher placing a low value on educating these students. When participants were granted access to the same physical spaces as their peers, they were primarily expected to either participate in a parallel fashion by engaging in a segregated activity, or to sit on the sies and watch as the activities took place. In the rare instances that participants were invited to participate in the same activities as their peers, poorly executed or non-existent modifications prevented them from experiencing meaningful participation. The authors concluded that in order for the participants to have felt included in their PE classes, three things should have happened: (1) they should have been given access to the physical space in which their PE class occurred (i.e. not being segregated to an alternative instructional space), (2) they should have been permitted to participate in the large group PE activities when in that space, and (3) appropriate

accommodations should have been implemented during those activities that led to meaningful participation.

Most recently, Haegele, Hodge, and colleagues (2020) further examined the perspectives of individuals with visual impairment toward inclusion in integrated PE in the United States, through another retrospective, qualitative description study. In this study, 10 participants engaged in one-on-one telephone interviews guided by questions pertaining to their perceptions and feelings about being educated alongside their sighted peers in PE. Three interrelated themes were identified from the data: (a) "'I always felt like a misfit': a missing sense of belonging, acceptance, and value"; (b) "'I felt very excluded, very pushed to the side': lack of access to activity participation", and (c) "'Even though it sucked, I do agree with it': preference for integrated settings". Although the participants experienced similar feelings of exclusion, segregation, and meaningless participation to those of the participants in the previously mentioned study, they expressed a perceived importance of being integrated with their sighted peers in PE. This importance resulted from a belief that their presence in integrated PE was an opportunity for growth in others, a lack of awareness of alternative opportunities, and their experiences in other settings. The authors concluded that strategies must be identified that might help to promote full, meaningful access to activity participation for individuals with visual impairments in integrated PE settings.

'Inclusive' Strategies in PE

Researchers and practitioners alike have offered up best practices and strategies to promote 'inclusion' in PE settings; however, the definition of this term is inconsistent even within this body of work. Many best practice articles refer to 'inclusion' as a placement (i.e., integration) and indicate that the strategies laid out will lead to the instructor successfully

teaching a diverse group of students at one time (Nagro et al., 2016; Williston, 2017). Some such strategies include speaking with the entire class about 'inclusion' (Williston, 2017) and narrowing expectations from those held for the students without disabilities (Watson, 2019). The authors of an 'inclusion' rating scale for PE on the other hand, first identify inclusion as a school-wide practice where students with disabilities are educated in general education settings (i.e., integration), but later describe inclusion as a feeling the students with disabilities themselves ascribe to their experiences within the PE class (Lieberman, Brian et al., 2019). This, inherently, is confusing, given that the rating scale itself is observational, and does not take into consideration the perspectives of the students.

Of concern is that none of these practices or strategies are evidence-based. By referring to these strategies as best practices and promoting their use by physical educators without having data to support their benefits, it is possible that students with disabilities may be unintentionally harmed. More research is needed that investigates the experiences of students with disabilities in integrated PE settings to either support or refute the use of any practices that are identified as 'inclusive'. That is, research is necessary that examines whether these 'inclusive' strategies can help influence feelings associated with inclusion (i.e., acceptance, belonging, value) among those with disabilities from their embodied, first-person perspectives. The purpose of Study 2 was to examine how students with orthopedic impairments experience strategies identified in the literature as being 'inclusive'.

Summary

Rather than making a claim that integration in PE should or should not take place, the research described above provided strong support for decisions about PE placement to be made based on the unique context surrounding the educational needs of each student with a disability.

Additionally, the perpetual nature of bullying and discrimination, inappropriate or inadequate accommodations, and lack of physical access that was reported hints at a need for a restructuring of integrated PE when it *is* selected as the best choice for a student with a disability. PE professionals should seek to develop effective instructional strategies to help combat these issues in integrated PE classes in order to improve the quality of the experience for students with disabilities.

Interpretative Phenomenological Analysis (IPA)

To investigate the lived experiences of students with orthopedic impairments in integrated PE classes an IPA approach was used. IPA is a qualitative research approach used by researchers to attempt to understand the subjective meaning that individual participants attribute to events or experiences by exploring how they make sense of their personal and social world (Smith & Osborn, 2008). Given the unique theoretical lens that is associated with IPA, being phenomenological, hermeneutical, and idiographic, spending time unpacking this research approach here was deemed warranted.

Phenomenology

Phenomenological inquiries seek to understand the subjective experiences of participants (Smith, 2017). IPA is phenomenological in that it closely examines the lived experiences of the participants and their perceptions of objects and events from their unique lens (Smith & Osborn, 2008). These lived experiences can be either first-order activity, the phenomenon itself, or second-order activity, the mental and emotional responses each participant has to the phenomenon (Shinebourne, 2011). In quality IPA research, effort is made to examine both the first- and second-order activities in participants' lives by examining not only the experiences that participants have, but also the meaning that they attribute to those experiences (Shinebourne,

2011). IPA research, and particularly IPA research involving participants with disabilities, further examines these first- and second-order activities from an embodiment perspective (Goodwin, 2020). Embodiment "means all the ways we have to sense, feel, and move in the world as these are mediated by the interests of social environment" (Titchkosky, 2011, p. 3). Given that an individual's body is often considered to be either enabling or disabling, the embodiment perspective is significant for those with disabilities (Haegele et al., 2017). The body for an individual with a disability then takes on a more active, rather than passive role, in its interactions with the social world. Further, this embodiment perspective becomes even more relevant in research related to adapted physical activity and adapted PE due to the intimate relationship between embodiment and movement (Standal, 2014).

Hermeneutics

IPA emphasizes that the researcher is an active participant in a two-stage interpretation process; the participants are actively trying to make sense of their own lived experiences, and the researcher is attempting to make sense of the participants experiences as they do this (Smith & Osborn, 2008). Thus, IPA also has roots in hermeneutics and theories of interpretation (Smith & Osborn, 2008). During data collection in an IPA study, researchers not only record notes on the tone and circumstances of the interviews, but also reflect upon their own feelings and initial interpretations of emerging themes (Smith, 2017). These field notes are then included in the data analysis process for each interview.

Once the overall thematic analysis has occurred, the researcher again analyses each piece of data in light of the whole, further interpreting the data and its meanings. This strategy for deepening the analysis and thus strengthening the interpretation is referred to as the "hermeneutic circle" (Smith, 2017). To do this effectively, Smith (2017) encourages researchers

to ask oneself questions about the data; an example of which might be a close examination of the language and type of language used to determine what it reveals about the experience. The researcher's process of interpreting participant data relies heavily on their own experiences and pre-conceptions (Shinebourne, 2011). It is critical therefore, that the researcher examine how their pre-conceptions influenced the research and data analysis process and be transparent about such to both the research participants and those who consume any resulting literature (Shinebourne, 2011). The hermeneutic nature of IPA, rather than a strictly descriptive approach, creates a final product that portrays each participants' lived experiences in ways in which they may have been unable or unwilling to do themselves (Shinebourne, 2011).

Idiography

In line with the social constructivist research paradigm, IPA research is idiographic in nature and attempts not to make generalizations about groups or populations, but rather to understand the unique experiences of each individual participant (Smith et al., 2009). The priority of IPA then, is to "attend to the detail of particular cases and lived experience" (Shinebourne, 2011, p. 24). To achieve this aim, IPA studies typically have relatively small sample sizes of five to 10 participants, allowing the researcher to focus on nuanced meanings within each narrative (Snelgrove, 2016). Consistent with this commitment to idiography, each interview transcript is viewed during data analysis as a case in its own right and is analyzed as such before any common themes are noted across cases (Smith, 2017). As such, the result of IPA analyses commonly takes the form of an idiographic interpretative narrative, interweaving interpretative commentary with extracts from each participants' personal accounts (Shinebourne, 2011). Although external validity is limited in IPA studies due to their idiographic nature, it has been argued that in learning about unusual and interesting cases within a given phenomenon,

researchers are able to contribute to the understanding of that phenomenon overall (Snelgrove, 2016).

Chapter Summary

Researchers have emphasized the need to pursue research on inclusion as a subjective experience from the perspective of students with disabilities rather than the perspective of researchers or practitioners (Spencer-Cavaliere & Watkinson, 2000). It is important to note, however, just four studies have examined the perspectives of students with orthopedic impairments, all of which were completed outside of the United States. The United States education system is structured differently than in other areas of the world; therefore, it is important that researchers investigate how students with orthopedic impairments are experiencing PE in the United States. Further, several 'inclusive' strategies for integrated PE that are promoted by PE professionals can be found in both academic and practitioner-focused literature, yet none of these strategies have been investigated empirically. This inquiry examining the perspectives of American students with orthopedic impairments toward PE will help to fill these gaps.

CHAPTER III: RESEARCH METHODS

The purpose of this chapter is to discuss the methods used in each included inquiry. This dissertation was constructed using a two-manuscript approach. As intended, the first study explored the experiences of students with orthopedic impairments in integrated physical education (PE) classes. In the second study, the researcher investigated students with orthopedic impairments' experiences with strategies to promote 'inclusion' in integrated PE classes. Both studies were framed by the IPA approach and utilized the same group of participants, and thus are presented jointly below.

Purpose and Research Questions

The purpose of the first study was to explore the embodied experiences of students with orthopedic impairments in integrated PE classes. The research questions for Study 1 were:

1. What are the experiences of the students with orthopedic impairments in integrated PE classes?
2. What meaning do participants ascribe to their experiences in integrated PE classes?

The purpose of the second study was to examine how students with orthopedic impairments experienced strategies identified in the literature as being 'inclusive'. The research questions for Study 2 were as follows:

1. What experiences have students with orthopedic impairments had with strategies intended to promote 'inclusion' in integrated PE classes?
2. Have strategies identified as promoting 'inclusion' informed feelings of inclusion for students with orthopedic impairments in integrated PE classes?

Research Paradigm and Positionality

Both the first and second studies were guided by an IPA approach in alignment with the social constructivist worldview, as the researcher believes that individuals develop subjective meanings of their experiences while attempting to gain an understanding of the world in which they live (Creswell, 2014). The epistemological and ontological underpinnings of this worldview are inherent, as a social constructivist believes truth to be subjective, based on historical and social perspectives (Creswell, 2014). The researcher can only hope to understand this subjective truth by seeking to understand the context or setting in which participants exist, and then personally gathering information about those participant experiences (Creswell, 2014)

Given the interpretive nature of IPA studies, the researcher's own perspective and biases inherently influences the data collection and analysis processes. The researcher identifies as (a) a White female without a disability, (b) a former adapted PE teacher, (c) a current doctoral student studying and conducting research on adapted PE, and (d) someone with experience working with students with orthopedic impairments in camp and sports settings.

Research Approach

The researcher used an IPA approach to examine the PE experiences of students with orthopedic impairments. IPA is a qualitative research approach that helps researchers understand the subjective meaning that individual participants attribute to events or experiences by exploring how they make sense of their personal and social world (Smith & Osborn, 2008). IPA is phenomenological in that it closely examines the lived experiences of the participants and their perceptions of objects and events from their unique lens (Smith & Osborn, 2008). Additionally, IPA emphasizes that the researcher is an active participant in a two-stage interpretation process; the participants are actively trying to make sense of their own lived experiences, and the researcher is attempting to make sense of the participants experiences as they do this (Smith &

Osborn, 2008). As such, IPA also has roots in hermeneutics and theories of interpretation (Smith & Osborn, 2008). In line with the social constructivist research paradigm, IPA research is idiographic in nature and attempts not to make generalizations about groups or populations, but rather to understand the unique experiences of each individual participant (Smith et al., 2009).

There are two central aims of the IPA research approach. First, researchers attempt to understand the participants' world and adequately describe specific events from their perspective (Larkin et al., 2006). In this study, the specific events of interest are the participants' PE experiences. Secondly, researchers must perform an interpretative analysis where they seek to understand and describe the meanings and feelings that participants attribute to the events of interest (Larkin et al., 2006). In these studies, the researcher attempted to understand and portray the meaning and feelings that participants associated with their experiences in K-12 PE. The IPA research approach aligns with the purposes of these studies and was deemed to be an appropriate conceptual framework.

Participants

To recruit interview participants, the researcher sent a welcome letter (see Appendix A) with a description of the research purpose and protocol, along with contact information for the researcher, to personal contacts via email. Additionally, an abbreviated version of this information was posted on the social media accounts of the researcher in an effort to reach the maximum number of potential participants. The researcher instructed individuals that were interested in participating in the study to contact her directly via email to express interest. The researcher then distributed consent (see Appendix B) and assent forms (see Appendix C), as well as a demographic questionnaire (see Appendix D), to all interested parties to be completed by the potential participants' and their parents or guardians. The demographic questionnaire included

questions about age, gender, disability status, school and PE class type, and the days and times that they might typically be available for an interview.

A sample of six interview participants (aged 10-14 years; four females and 2 males) was purposively sampled to include those who: (a) were currently enrolled in a K-12 school in the United States, (b) were between the ages of 10 and 18 years old, (c) were currently enrolled in an integrated PE class, (d) self-identified as having an orthopedic impairment as defined by the Individuals with Disabilities Education Act (IDEA, 2004; students who qualify for services under this category may have any number of disabilities affecting their physical mobility, such as a congenital anomaly, impairment caused by disease [i.e. poliomyelitis], cerebral palsy, spina bifida, or spinal cord injury; 2004), (e) did not have an intellectual disability/IQ of less than 70, and (f) were willing to complete two interviews that were approximately 60- to 90-minutes each. Participation was not limited to individuals identifying in any specific gender, race/ethnicity, or socioeconomic categories. The six selected participants participated in both Study 1 and Study 2. Three participants identified as White, one as Caucasian, one as Black, and one as Asian. One student utilized a manual wheelchair for mobility, one student utilized a power wheelchair for mobility, and one student utilized arm crutches for mobility. The remaining three ambulated independently without mobility aids. Each participant was assigned a separate pseudonym to be used for data presentation purposes in each study to increase confidentiality. Participants were asked if they would like to select their own pseudonym, and three of the six elected to do so (Baked Bean/Ramen Noodle, Grandma/Agnes, and Rowena/Alice). These names, as well as additional demographic data, can be found in Appendix E.

Data Collection

Study 1

Data was collected for Study 1 in three ways: a demographic questionnaire, semi-structured interviews, and reflective interview notes.

Demographic questionnaire. First, when expressing interest in participating in the study, potential participants completed a nine-item demographic questionnaire. This questionnaire included open-ended questions regarding the potential participants' (a) age, (b) gender, (c) race/ethnicity, (d) disability status, (e) type of school attended, (f) type of PE class attended, and (g) days and times of availability for an interview. The researcher asked participants to describe their gender, race/ethnicity, and disability status in an open-ended format, thus their demographic information is portrayed in their own words.

Semi-structured interviews. Each participant completed one semi-structured interview (lasting 29-to 54-minutes in length with an average of 38-minutes) utilizing open-ended questions developed within the IPA research approach. Phone or video chat interviews were selected as the data collection type for this group due to the limited number of individuals meeting the criteria for this project from which to draw from in the same geographical region as the researcher (Haegele et al., 2017; Haegele & Zhu, 2017). All participants elected to complete the interviews via video chat. The researcher utilized a semi-structured interview guide (see Appendix F) that was developed by the researcher and reviewed by experts in the field to facilitate the interviews. One adapted PE researcher, one child with an orthopedic impairment, and one adapted PE teacher served as the panel of experts. The researcher sent each of the panel members a document outlining the purpose of the study and research questions, along with the interview guide, and asked for feedback as to the relevance and clarity of questions. In total, the panelists recommended editing three questions for clarity. The researcher then infused those

suggestions into the final draft of the interview guide. The interview guide consisted of open-ended questions developed within the conceptual framework of IPA.

Each interview began with the researcher describing the purpose of the study and her background to expose her positionality. Next, with the interview guide serving as a checklist to ensure that the same general topics were addressed by all participants, the researcher began interviewing the participants. Furthermore, the interview guide was used flexibly throughout the interviews to allow the participant to dictate the magnitude and order of the discussed topics (Smith, 2017; Smith & Sparkes, 2017). Sample questions from the interview guide for Study 1 included: (a) do you believe having an orthopedic impairment influences how you experience PE, (b) what kind of expectations exist for you in PE (e.g. achievement, participation, fitness, etc.), (c) what kind of activities do you participate in in PE, (d) how do you feel about being educated in PE with students who don't have a disability, and (e) do you feel like you were a full participant in PE classes?

Reflective notes. The researcher took reflective interview notes in the margins of the interview guide during each interview. These notes included the researcher's feelings about the tone of the interview, the relationship between the researcher and the participant, any topics or quotes that stand out as particularly meaningful, and initial thoughts about possible themes (Smith & Sparks, 2017). The reflective note taking process allowed the researcher to identify any potential personal biases that may affect the interview or any following interpretation of the interview. This process allowed the researcher to conceptually return to the context of the interview during the data analysis process (Walker et al., 2013).

Study 2

This study used four instruments for data collection. First, the researcher distributed a written prompt to participants upon completion of the interviews for Study 1. Second, the demographic questionnaires that participants filled out for Study 1 were retrieved for data presentation purposes in this study. Third, each participant selected engaged in a second semi-structured interview that utilized questions developed within the qualitative description approach. Lastly, the researcher took reflective field notes during the interviews.

Written prompt. Upon completion of data collection for Study 1, the researcher distributed one written prompt (see Appendix G) to all participants. The prompt read "please describe the degree to which you feel included in your PE classes, as well as any strategies that your PE teachers use that help you to feel more or less included." Participants were given one week to complete the prompt, which allowed them time to consider their answers and reply with more detail than they might in the interviews. Participants were permitted to handwrite, type, dictate to a scribe, use assistive technology, or audio record their responses.

Semi-structured interviews. After the responses to the written prompts were returned, the researcher and participants identified a day and time that they were both available to engage in one phone or video interview (at the preference of the participant). All participants selected video interviews, but one was completed over the phone due to technological difficulties. Interviews lasted between 23- and 57-minutes, with an average of 39-minutes. Phone or video interviews were selected as the data collection type for this study due to the diverse geographical locations of participants. Like the guide for Study 1, the interview guide for Study 2 (see Appendix H) was developed by the researcher and reviewed by experts in the field to meet the purpose of each study. One adapted PE researcher, one child with an orthopedic impairment, and one adapted PE teacher served as the panel of experts. The researcher sent each panel member a

document outlining the purpose of the study and research questions, along with the interview guide, and asked for feedback as to the relevance and clarity of questions. In total, the panelists recommended editing two questions for clarity. The researcher then infused those suggestions into the final draft of the interview guide. The questions were developed based on strategies from education websites (Nagro et al., 2016; Wang, 2013; Williston, 2017), articles in PE practitioner journals (Ellis et al., 2009; Lieberman, Grenier et al., 2019), and an 'inclusion' rating scale for PE (Lieberman, Brian et al., 2019). The strategies selected to focus on were: (a) support from a paraprofessional or educational aide, (b) support from a non-support staff adult (i.e., classroom teacher, physical therapist, occupational therapist, parent), (c) support from a peer buddy, (d) arriving to and departing from PE with the large group, (e) sitting/standing with peers during instruction, (f) duration-based warm-up routines rather than repetition based, (g) teacher led equipment/rule/activity modifications, (h) student choice and collaboration about modifications, (i) additional demonstrations or directions, (j) discussion of disability between student and teacher, (k) discussion of disability between teacher and peers without disabilities, (l) asking student with disability to demonstrate skills for class, (m) peer activity partners rather than adult/staff activity partners, (n) teacher selected teams or groupings, (o) fitness testing alongside peers without disabilities, and (p) the same quantity/quality of feedback to students with and without disabilities. Sample interview questions included: (a) have your PE teachers made any equipment modifications or changes for you in your PE class, (b) have you ever been given choices in the activities you participate in or the modifications you receive in your PE class, and (c) did this help you to feel more included in your PE class?

Each interview began with the researcher describing the purpose of the study and her background to expose her positionality. Next, with the interview guide serving as a checklist to

ensure that the same general topics were addressed by all participants, the researcher began interviewing the participants. Additionally, the interview guide was used flexibly throughout the interviews to allow the participant to dictate the magnitude and order of the discussed topics (Smith, 2017; Smith & Sparkes, 2017).

Reflective notes. The researcher also took reflective interview notes in the margins of the interview guide during each interview. These notes included the researcher's feelings about the tone of the interview and the relationship between the researcher and the participant, any topics or quotes that stood out as particularly meaningful, and initial thoughts about possible themes (Smith & Sparks, 2017). The reflective note taking process also allowed the researcher to identify any potential personal biases that may have affected the interview or any following presentation of the interview data. This process allowed the researcher to conceptually return to the context of the interview during the data analysis process (Walker et al., 2013).

Data Treatment and Analysis

Upon completion of the interviews, the audio recordings were transcribed verbatim. The interview transcripts provided a semantic record of the interview; however, given that the aim of IPA is primarily to interpret the meaning of the content of the interviewee's account (Smith et al., 2009), extended pauses and nonverbal utterances were not included in the written transcripts. The transcribed interview data and written prompt responses were treated using a four-step IPA data analysis procedure consisting of a line-by-line thematic analysis to give meaning and structure to the participants' experiences (Smith et al., 2009). First, the researcher read and reread the transcriptions to familiarize herself with the data, allowing her to make reflective, interpretative notes and comments on the initial emergence of themes. Second, the researcher highlighted key phrases and developed meaningful labels with which to code them. During this

step, the researcher made additional interpretative notes and reduced the reflective interview notes from each individual interview alongside that specific interview transcription. Third, emergent themes were compared within each interview's documents to form clusters of related themes. Lastly, the researcher searched for patterns and connections across the entire participant group to compile overall descriptions of themes and subthemes.

Quality Assessment

The researcher followed four principles for assessing the quality of qualitative research as presented by Yardley (2000) and recommended by Smith and colleagues (2009) for use in IPA studies: (a) sensitivity to context, (b) commitment and rigor, (c) transparency and coherence, and (d) impact and importance. Sensitivity to context addresses the context of theory and related literature, social and cultural contexts, and the balance of power between the researcher and the interviewee (Yardley, 2000). The researcher addressed sensitivity to context first by conducting a thorough review of related literature and selecting an appropriate framework for the study. Sensitivity to social and cultural contexts was shown by describing her positionality as a researcher to the interview participants prior to data collection to uncover any potential biases. Lastly, the researcher demonstrated sensitivity to the balance of power between herself and the participants by carefully considering the role of the participant as an expert in every stage of the study's design. Commitment describes the responsibility of the researcher to have a prolonged engagement with the topic, develop competence in the methods used, and immerse herself in the relevant data (Yardley, 2000). "Rigor refers to the resulting completeness of the data collection and analysis" (Yardley, 2000, p. 221). Commitment and rigor were addressed by (a) conducting comprehensive interviews where the researcher attended closely to what the participant was saying and asking clarifying questions as needed, (b) carefully identifying inclusion criteria for

the participants that aligned with the research questions and research approach, and (c) employing appropriate and meaningful data analysis procedures. Transparency and coherence relate to the version of reality that is constructed within the resulting manuscript (Yardley, 2000). The researcher demonstrated a commitment to transparency and coherence by (a) selecting appropriate participants to detail the phenomena (i.e. students with orthopedic impairments themselves rather than stakeholders), (b) explicitly describing the data collection, data treatment, and analysis protocols, (c) identifying her positionality, potential biases, and reflexivity, and (d) "presenting excerpts of the textual data in which the readers can themselves discern the patterns identified by the analysis" (Yardley, 2000, p. 222). Yardley (2000) explained that the impact and importance of qualitative research lies in the author's ability to communicate the content as such to the reader. Thus, the final principle will be determined by those consuming the resulting manuscript.

CHAPTER IV: STUDY MANUSCRIPTS

The purpose of this chapter is to present each manuscript included in this dissertation. The manuscript for the first study, "They're Either Going to Find Ways to Include You or They're Just Kind of Not": Experiences of Students with Orthopedic Impairments in Integrated Physical Education, is presented beginning on page 51. It was composed according to the authorship guidelines of the *Journal of Research in Special Educational Needs (JORSEN)*. *JORSEN* does not follow the American Psychological Association guidelines for manuscripts, therefore a sample of their specific formatting guidelines exists on the title page. The manuscript for study two, "Everybody Wants to be Included": Experiences with 'Inclusive' Strategies in Physical Education, follows the first manuscript, starting on page 82. It was composed in keeping with the formatting guidelines of the *Journal of Developmental and Physical Disabilities.* Citations for the second manuscript follow the style of the American Psychological Association.

MANUSCRIPT I

"They're Either Going to Find Ways to Include You or They're Just Kind of Not": Experiences of Students with Orthopedic Impairments in Integrated Physical Education

Formatted for the *Journal of Research in Special Educational Needs*

Abstract

This study explored the lived experiences of students with orthopedic impairments in integrated physical education classes. An interpretative phenomenological analysis research approach was used, and six students with orthopedic impairments (age 10-14 years) served as participants. Data sources were semi-structured, audiotaped interviews and reflective interview notes. Based on a thematic data analysis process, three themes were developed: "Without it, they probably would like, just treat me normal": visibility, disclosure, and expectations; "I sit out": limited participation and a lack of modifications/accommodations; and "PE doesn't feel great": social interactions and perception of self. The experiences portrayed throughout these themes highlight the marginalization and lack of access that the participants encountered in their integrated physical education classes. The findings indicated that physical education professionals working with students with orthopedic impairments may benefit from reflecting on personal biases, as well as their instructional practices, in an effort to improve the quality of physical education experiences for these students.

Keywords: adapted physical education, inclusion, physical disability, mobility impairment, physical activity

In 2005, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) stated that students cannot be disqualified from receiving instruction in general educational settings based on their disability status alone. This statement is consistent with assertions that integrated education is "the right thing to do" (Yell, 1995, p. 389) and a "moral imperative" (Bricker, 1995, p. 180) that demonstrates political correctness in regard to basic human rights, forming "the ethical substrate of educational rhetoric" (Makopoulou et al., 2019, p. 1). The term *integrated* is used purposely here to represent a physical space in which students with and without disabilities are educated together (Haegele, 2019). Given the stance that integrated education is an inarguably superior moral choice (Bricker, 1995), it is not surprising that educational scholars are promoting the belief that all students should be integrated into general educational settings rather than receive instruction in self-contained placements (Wilson et al., 2019). Highlighting this, the percentage of students with disabilities being educated through general educational means has grown dramatically in recent years (Obrusnikova & Block, 2020). For example, in the United States, 14% of the total public-school population received special education services under the Individuals with Disabilities Education Act (IDEA, 2004) during the 2017-2018 school year, and the majority of these students received most of their education within integrated settings with their peers without disabilities (National Center for Education Statistics, 2019). Approximately one percent of those 14% of students receiving special education services qualify under the category of orthopedic impairment (National Center for Education Statistics, 2019). To qualify under orthopedic impairment a student must have a physical impairment that adversely affects their educational performance, such as poliomyelitis, cerebral palsy, or an amputation (IDEA, 2004).

Physical education (PE) is among the first school-based settings in which students with disabilities, including those with orthopedic impairments, are educated in the same integrated physical space as their peers without disabilities (Alquaraini & Gut, 2012). As such, it is not surprising that most students with disabilities are enrolled in general PE settings alongside their peers without disabilities in the United States (Governmental Accountability Office [GAO], 2010). Although the majority of students with disabilities are being educated in general physical education spaces, concerns regarding this placement exist (Coates & Vickerman, 2008). Specifically, studies that investigated the experiences of students with disabilities have commonly found that participants encountered discriminatory attitudes from peers and teachers (Fitzgerald & Stride, 2012; Svendby & Dowling, 2012; Wang, 2019), restricted participation due to lowered expectations and inappropriate or nonexistent modifications (Goodwin & Watkinson, 2000; Wang, 2019), and a perceived lack of training on behalf of the PE staff (Wang, 2019). In a recent review in this area of inquiry, Holland and Haegele (2021) noted that despite the findings of the past 20-years of research, which consistently demonstrated challenging experiences for youths with disabilities in PE, it appears little has been done to improve the quality of PE experiences of youth with disabilities.

Given the subjective nature of experience, it is important to learn more about the experiences of specific groups of students in PE from the students themselves. While research examining the perspectives of youth with disabilities in integrated PE classes has grown in recent years (Holland & Haegele, 2021), few studies have explored the experiences of students with orthopedic impairments. That is, to the authors' knowledge, just four studies completed have focused on this population, taking place in Brazil, Canada (n=2), and Hong Kong. To date, this limited area of inquiry has highlighted a number of challenges that students with orthopedic

impairments experience in PE classes. For example, students with orthopedic impairments tended to report feeling segregated, excluded, and socially isolated in their PE classes (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020), and had they encountered challenges with attempting to attain physical access to PE settings, such as not having a ramp or lift necessary to enter the PE space (Li & Chen, 2012). In addition, students with orthopedic impairments noted instances of receiving incompetent or interfering help from peers during integrated PE classes in Canada, which resulted in a loss of independence and threatened self-esteem (Goodwin, 2001).

Given the proliferation of integrated education for youth with disabilities, including those with orthopedic impairments, in the United States, and the challenging experiences that have emerged in other countries among this population, it is important to understand the lived experiences of youth with orthopedic impairments in this context. Therefore, to expand this line of inquiry, this study explored the lived experiences of students with orthopedic impairments in integrated PE classes.

Methods

This study was underpinned by a social constructivist worldview, with an emphasis on exploring the subjective meanings the participants ascribed to their experiences while attempting to gain an understanding of the world in which they live (Creswell, 2014). The epistemological and ontological underpinnings of this worldview are inherent, as social constructivism supports the notion that truth is subjective and is based on historical and social perspectives (Creswell, 2014). In studies guided by social constructivism, researchers can only hope to understand participants' subjective truth by seeking to understand the context or setting in which participants exist, and then personally gathering information about those participant experiences (Creswell, 2014). To that end, the researchers must identify their personal and professional positionalities,

as their own subjective truth inevitably influenced the interpretative process (Hopkins et al., 2017). Specific to this research, the authors all possess backgrounds in education and education research, with expertise in both qualitative and quantitative inquiries using interviews, observations, and survey methodologies. The first three authors have extensive backgrounds in both PE and adapted PE/physical activity and the fourth has vast experience working with students with orthopedic impairments and has served on several collaborative research teams with an adapted physical education focus. All authors are financially independent and do not identify as members of the disability community; however, two of the authors do have immediate family members who identify as having a disability.

Research Approach

In alignment with the social constructivist worldview, an interpretative phenomenological research approach (IPA) was adopted to examine the PE experiences of students with orthopedic impairments for this study. IPA is a qualitative research approach with phenomenological, hermeneutic, and idiographical roots (Smith et al., 2009) that is used to help understand the subjective meaning that individual participants attribute to events or experiences by exploring how they make sense of their personal and social world (Smith & Osborn, 2008). IPA is phenomenological in that it closely examines the lived experiences of the participants and their perceptions of objects and events from their unique lens (Smith & Osborn, 2008). Additionally, IPA emphasizes that the researcher is an active participant in a two-stage hermeneutic process, where the analyst attempts to make sense of the participants' experiences, while the participants actively attempt to make sense of their own lived experiences (Smith & Osborn, 2008). In line with the social constructivist research paradigm, IPA research is idiographic in nature and

attempts not to make broad generalizations about groups or populations, but rather to understand the unique experiences of each individual participant (Smith et al., 2009).

Participant Recruitment

Participants were purposively recruited based on pre-specified eligibility criteria, including : (a) currently enrolled in a K-12 school in the United States, (b) between the ages of 10 and 18 years old, (c) currently enrolled in an integrated PE class, (d) self-identified as having an orthopedic impairment as defined by the Individuals with Disabilities Education Act (IDEA, 2004; students who qualify for services under this category may have any number of disabilities affecting their physical mobility, such as a congenital anomaly, impairment caused by disease [i.e. poliomyelitis], cerebral palsy, spina bifida, or spinal cord injury; 2004), (e) do not have an intellectual disability/IQ of less than 70, and (f) willing to complete one interview that would last approximately 60- to 90-minutes minutes. Recruitment of individuals was not limited by specific gender, race/ethnicity, or socioeconomic categories. To recruit interview participants, the first author sent a welcome letter with a description of the research purpose and protocol, along with contact information for herself to personal contacts via email. Personal contacts included former colleagues (e.g., adapted PE teachers, physical therapists), wheelchair sport coaches, and parents of youth with orthopedic impairments. Additionally, an abbreviated version of this information was posted on the social media accounts of the first and second authors in an effort to reach the maximum number of potential participants.

The emails and social media posts directed interested individuals to contact the first author directly for more information. Once contacted by interested parties, the first author then distributed a consent form, an assent form, and a demographic questionnaire, to be completed by the potential participants' and their parents or guardians. The demographic questionnaire

included closed-ended screening questions to determine whether interested parties were eligible for the study. Upon completion of the questionnaires, the first author invited potential participants, who met all inclusion criteria, to participate in the study. A one-on-one virtual meeting was held with each participant's parent or guardian prior to obtaining consent. During this meeting, the first author reviewed the purpose of the study and the protocol, and answered any questions posed by the parent/guardian. Since all potential participants were under the age of 18, the first author communicated primarily with parent/guardian until consent had been given. After consent was obtained, the first author had a video call with the participant, read the assent form aloud and obtained verbal assent. At this point, potential participants who assented to participate were enrolled in the study. The Institutional Review Board at the researchers' university reviewed and approved the research protocols.

Participants

Six youth with orthopedic impairments (two males and four females; ages 10 - 14 years), met the inclusion criteria and participated in this study. Three participants identified as White, one as Caucasian, one as Black, and one as Asian. For mobility, one student utilized a manual wheelchair, one utilized a power wheelchair, and one utilized arm crutches. The remaining three ambulated independently without mobility aids. All participants attended integrated physical education classes in either public (n = 5) or private (n = 1) K-12 schools. The one participant attending a private school had been in public school for his entire education other than the current school year. Additionally, participants were asked if they would like to select their own pseudonym to increase their anonymity and three of the six (Baked Bean, Grandma, and Rowena) elected to do so. The first author selected the pseudonyms for the remaining three. These names, as well as additional demographic data, can be found in Table 1.

Data Collection

Data was collected in three ways: a demographic questionnaire, semi-structured interviews, and reflective interview notes. First, the parents or guardians of potential participants completed a nine-item demographic questionnaire. This questionnaire included questions regarding the potential participants' (a) age, (b) gender, (c) race/ethnicity, (d) disability status, (e) type of school attended, (f) type of PE class attended, and (g) days and times of availability for an interview. Conversely, once consent and assent were obtained, the first author asked participants to describe their gender, race/ethnicity, and disability status in an open-ended format, thus their demographic information was portrayed in their own words.

The primary source of data for this study was semi-structured, audiotaped interviews. Each participant engaged in one, semi-structured interview utilizing open-ended questions inspired by the IPA research approach. Phone or video chat interviews were selected as the data collection type for this group due to the limited number of individuals who resided in the same geographical region as the researcher and met all inclusion criteria. m Participants were given the choice between phone or video chat, and if they selected the video option, were given the choice of platform (Zoom or FaceTime). All six participants selected Zoom, but due to technical difficulties at the time of the interview, one interview was conducted over the phone. Interviews ranged from 29-to 54-minutes in length. A semi-structured interview guide, developed by the first author and reviewed by a panel of experts (one adapted PE researcher who primarily conducts qualitative research and frequently uses the IPA approach, one child with an orthopedic impairment, and one adapted PE teacher), was used to facilitate the interviews. During guide development, the first author sent each panel member a document outlining the purpose of the study and research questions, along with the interview guide, and asked for feedback as to the

relevance and clarity of questions. In total, the panelists recommended editing three questions for clarity. The first author then integrated those suggestions into the final draft of the interview guide.

Each interview began with the first author describing the purpose of the study and her background to expose her positionality. In addition to serving as an interview checklist to ensure that the same general topics were addressed by all participants, the interview guide was used flexibly throughout the interviews to allow the participant to dictate the magnitude and order of the discussed topics (Smith, 2017) Sample questions from the interview guide for this study included: (a) how does having an orthopedic impairment influence how you experience PE?; (b) what kind of expectations exist for you in PE (e.g. achievement, participation, fitness, etc.)?; (c) what kind of activities do you participate in during PE?; and (d) how do you feel about being educated in PE with students who don't have a disability?

During and after each interview, the interviewer took reflective interview notes in the margins of the interview guide. These notes included the first author's feelings about the tone of the interview, the relationship between the first author and the participant, any topics or quotes that stood out as particularly meaningful, and initial thoughts about possible themes (Smith & Sparks, 2017). The reflective note taking process allowed the first author to identify any potential personal biases that may affected the interview or any following interpretation of the interview. This process allowed the first author to conceptually return to the context of the interview during the data analysis process (Walker et al., 2013).

Data Treatment and Analysis

Upon completion of the interviews, the audio recordings were transcribed verbatim. The interview transcripts provided a semantic record of the interview; however, given that the aim of

IPA is primarily to interpret the meaning of the content of the interviewee's account (Smith et al., 2009), extended pauses and nonverbal utterances were not included in the written transcripts. The transcribed interview data was treated using a four-step IPA data analysis procedure consisting of a line-by-line thematic analysis to give meaning and structure to the participants' experiences (Smith et al., 2009). First, the first author read and reread the transcriptions to familiarize herself with the data, which allowed her to make reflective, interpretative notes and comments on the initial emergence of themes. Second, the first author highlighted key phrases and developed meaningful labels with which to code them. During this step, the first author made additional interpretative notes and reduced the reflective interview notes from each individual interview alongside that specific interview transcription. Third, emergent themes were compared within each interview's documents to form clusters of related themes. Lastly, the first author searched for patterns and connections across the entire participant group to compile overall descriptions of themes and subthemes.

Quality Assessment

Four principles for assessing the quality of qualitative research as presented by Yardley (2000) and recommended by Smith and colleagues (2009) for use in IPA studies were followed: (a) sensitivity to context, (b) commitment and rigor, (c) transparency and coherence, and (d) impact and importance. Sensitivity to context addresses the context of theory and related literature, social and cultural contexts, and the balance of power between the researcher and the interviewee (Yardley, 2000). Sensitivity to context was addressed by conducting a thorough review of related literature and selecting an appropriate framework for the study, by the interviewer describing her positionality as a researcher to participants prior to data collection to uncover any potential biases, and by carefully considering the role of the participant as an expert

in every stage of the study's design. Commitment describes the responsibility of researchers to develop competence in the methods used, and immerse herself in the relevant data (Yardley, 2000). According to Yardley, "Rigor refers to the resulting completeness of the data collection and analysis (p. 221). Commitment and rigor were addressed by conducting comprehensive interviews where the interviewer attended closely to what the participant said and asked clarifying questions as needed, carefully identifying inclusion criteria for the participants that aligned with the research questions and research approach while employing appropriate and meaningful data analysis procedures. Transparency and coherence relate to the version of reality that is constructed within the resulting manuscript (Yardley, 2000). This principle was supported by selecting appropriate participants to detail the phenomena (i.e., students with orthopedic impairments themselves rather than stakeholders), explicitly describing the data collection, data treatment, and analysis protocols, identifying her positionality, potential biases, and reflexivity, and "presenting excerpts of the textual data in which the readers can themselves discern the patterns identified by the analysis" (Yardley, 2000, p. 222). According to Yardley, the impact and importance of qualitative research lies in the author's ability to communicate the content as such to the reader. Thus, the final principle will be determined by those consuming the resulting manuscript.

Findings and Discussion

Three interrelated themes were constructed based on the data analysis: "Without it, they probably would like, just treat me normal": Visibility, disclosure, and expectations; "I sit out": Limited participation and a lack of modifications/accommodations; and "PE doesn't feel great": Social interactions and perception of self. These themes are described in detail and discussed within the context of the literature below.

"Without It, They Probably Would Like, Just Treat Me Normal": Visibility, Disclosure, and Expectations

According to the United States Department of Education (USDE), "every individual involved in providing services to the student should know and understand his or her responsibilities for carrying out the IEP" (USDE, 2000, p.14). Interestingly, while all six of the participants confirmed that they received special education services with an individualized education plan (IEP), only three participants believed their PE teachers knew they had an orthopedic impairment. The three participants who believed their PE teachers did not know about their disability described exhibiting limited outward evidence of an orthopedic impairment, such as a slight limp (Amelia and Allister) or limited range of motion (Grandma). This theme depicts the feelings that participants had about whether to disclose their disability status to their PE teachers, as well as the experiences they had in PE with teachers who did or did not know about their orthopedic impairments.

Generally, Amelia, Allister, and Grandma described feeling like they were treated 'the same' as their peers and were happy that their PE teachers did not seem to know about their disability. Allister, for example, said that the expectations for him were the same as they were for the rest of his class, and that "I don't even think they know I have a disability. I like that, because I don't want them to like, make me do something easier than everybody else, and make me feel weird." Grandma and Amelia both felt as though keeping their teachers 'in the dark' about their impairment was beneficial as well. When asked if she had ever considered telling her PE teacher that she had an orthopedic impairment, Amelia responded that she only felt comfortable talking to her case manager and would not be interested in having a discussion about her disability with her PE teacher. Likewise, Grandma said "I would prefer not to tell them. I don't want nobody to

criticize me of having a disability." Allister, Amelia, and Grandma all seemed to feel as though disclosing their disability to their PE teachers would result in lowered expectations and marginalization (reflective notes). These concerns, which are aligned with negative experiences youth with orthopedic impairments have described previously (Fitzgerald, 2005; Goodwin & Watkinson, 2000), warrant questioning to ascertain whether the participants thought their PE teachers may be inherently biased toward students with disabilities. Perhaps, for example, the participants believed that their teachers engaged in deficit model or medical model thinking about disabilities. Unfortunately, these models represent prevalent ways of thinking about disability (Gieben-Gamal & Matos, 2017), where individuals with disabilities are viewed as faulty and in need of fixing (Haegele & Hodge, 2016). If participants perceived their teachers engaged in this line of thinking, they might have assumed their teachers would have lowered expectations for them if they knew the participants had a disability.

In contrast to the experiences of Allister, Amelia, and Grandma; Mack, who uses a manual wheelchair; Rowena, who uses a power wheelchair; and Baked Bean, who wears a prosthetic leg and/or uses arm crutches, all discussed implications in PE related to having a 'visible' disability. Each of these three participants believed that using mobility aids explicitly disclosed their orthopedic impairment without any conversation between them and their PE teachers. Unfortunately, Mack, Baked Bean, and Rowena reported that they felt they experienced lowered expectations and were marginalized by their PE teachers, giving some credence to the fears that Allister, Amelia, and Grandma expressed about the potential negative implications of disclosing their impairments; thus, supporting the notion that the participant's PE teachers may actually be inherently biased toward youth with disabilities (Haegele & Hodge, 2016). Mack, for example, described how frustrating it was to be treated differently based on his disability status:

> They [physical educators] don't really think to acknowledge me like with some other kids. That gets kind of irritating. They don't really acknowledge me at all, they kind of focus on everyone else. I still have a teacher that does not really know my name at all.

Among other issues, Mack's teacher not knowing his name made him feel like he was less important than his peers without disabilities in PE, and perhaps that his teacher only knew him by his disability. This experience caused Mack to feel as though he did not belong in his PE class. Rowena, who shared similar feelings of not belonging, said:

> I'm more valued in my other classes than I am in PE. I don't think they [physical educators] expect me to be able to do as much [in PE]. I think they go relatively easy on me, and I think they have low expectations for my physical ability and my participation in the class.

While Rowena expressed that her physical educator had low expectations for her, she preferred these interactions to those that occurred when her adapted PE teacher was present. She described how her adapted PE teacher treated her as though she was much younger than her actual age and she believed that he didn't "have a lot of experience with students that have a physical disability and not a cognitive disability. That's my impression." She described that:

> He [adapted PE teacher] goes easy on me. He talks through the entire time. He never actually has me do anything. He calls stretches lifting my arm up and down. Those are not stretching, those are arm exercises. He gave me a ball on a string to throw. Nobody wants to play with a ball on a string. His expectations are way, way, way, way, way too low. I'm 11 years old, I do not need to be doing patty-cake.

Concerningly, experiences with low expectations like those reflected by Rowena and Mack, echoed those that appeared throughout the extant literature (Fitzgerald, 2005). Thus, it is not

surprising that there was also a record of uneasiness surrounding the topic of disclosure, where participants in this study, and previous work (Moola et al., 2011), expressed fear over being treated differently, being excluded, or being marginalized, which has prevented them from discussing their disability with their teachers. Unlike Mack and Rowena, Baked Bean did not report having experiences in PE that were as explicitly negative. However, she did feel as though expectations for her participation were low and that overall, she was treated differently due to having an orthopedic impairment. She shared that if her PE teachers did not know about her leg amputation, "I think they would notice me less because they notice me more because of my leg… without it, they'd probably would like, just treat me normal."

"I Sit Out": Limited Participation and a Lack of Modifications/Accommodations

The first theme in this study depicted the way in which visible disabilities and explicit disclosure of the participants' impairments influenced the expectations and treatment that the participants felt they received from their teachers. In addition to the challenges depicted by some of the participants in theme one, considerations around disclosing impairments and visible disabilities also bled into considerations regarding access through accommodations and modifications (reflective notes). This theme centers on feelings participants had about their participation in PE with regard to a lack of modifications and/or accommodations.

Generally, participants described PE experiences in which either undesirable or inappropriate modifications were implemented, or no modifications were provided at all. For example, while Mack described having one teacher in elementary school that made him feel included, a startling contrast emerged, typified by a lack of available and appropriate modifications, once that teacher left the school district. Highlighting this, Mack described his first teacher as someone who "found ways for the whole class to participate where I was able to

do it with them, but my teachers after made me feel like they didn't care, and I was unsafe." Importantly, Rowena emphasized that all modifications are not necessarily helpful, and emphasized the importance of modifications that do not stray too far from the original activity. She gave examples of a meaningful modification, such as being able to get closer to a target in a throwing activity, versus a meaningless modification like being pushed on a chair strapped to a scooter with a hockey stick attached to it while her classmates played scooter hockey. She said that:

> I don't like it because it's a whole lot different than everybody else. It's not as fun since they're able to actually move themselves and I'm able to half-move a giant hockey stick while someone else pushes me, trying to chase after a ball to knock it into the goal. My personal opinion is that if it's not something that can decently, easily be adapted or we can figure it out on our own, it would be so different from everyone else that I should just be doing something else.

This desire for legitimate participation was discussed by individuals with orthopedic impairments previously, where like Rowena, participants in prior studies described how some well-intentioned accommodations in PE actually made things less enjoyable and hampered their ability to attain social capital (Fitzgerald, 2005). With that, Rowena felt embarrassed and marginalized when her teachers or peers made it so that she was automatically successful, sharing that:

> When they make it so I can do it, they usually take the challenge out of it, and there's no point in doing it then. I want to win every single time, and I can't win if there is no challenge, so I can win, but I can't win fairly.

To some degree, this incident also speaks to the lowered expectations that Rowena and the other participants described which were presented in the first theme (reflective notes). Modifying activities to the point where the students with disabilities are not challenged can be unintentionally marginalizing (Goodwin & Watkinson, 2000) and make PE "less fun" (Rowena).

When modifications were not offered at all, Mack, Amelia, Baked Bean, and Rowena all described experiences of sitting out rather than participating in PE activities, an experience that has been thoroughly described by students with disabilities over the last several years (Holland & Haegele, 2021). On occasion, Amelia, who perceived her PE teachers are unaware of her orthopedic impairment, self-selected to sit out when activities caused her discomfort or triggered incontinence. Amelia was glad that her teachers and peers did not notice when she had "accidents," but she still felt "embarrassed" and wished that she had the opportunity to participate in alternate activities rather than sitting out. Baked Bean, whose teacher does know about her disability, also often self-selected exclusion, explaining that "Most of the times I'm like okay, I can't do this one. I can't do it, it's kind of hard. So, I sit out mostly for the ones I can't do and watch everyone else." Baked Bean expressed feelings of gratitude over having some autonomy in the decision-making process, saying that if she weren't given a choice "I'd be pissed. Be so mad. I can do what I want, it should be my choice, so I'd be really mad." Unlike Baked Bean and Amelia, Mack and Rowena's experiences of sitting out were not by choice. Mack shared his feelings that "teachers, they're either going to find new ways that include you or they're just not," describing that in recent years, his teachers did the latter. Mack rarely participated in PE as a result, stating that either "I would just go for attendance and then leave" or "I just kind of sat there by myself." Mack preferred the opportunity to participate in PE activities in a safe and meaningful way rather than sitting out or leaving the class entirely. These

experiences of limited participation typified “bad days” in PE for youth with orthopedic impairments in the past (Goodwin & Watkinson, 2000, p. 151). For some, sitting out resulted from a teacher’s blatant discouragement from participating, but for others, restricted participation occurred due to a perceived uncertainty on the teacher’s behalf rather than overt exclusionary actions (Goodwin & Watkinson, 2000). Rowena experienced similar exclusion from activities, being asked to sit beside the bleachers and watch her classmates on many occasions. She recalled being told that she had to sit out but that she could not leave the space entirely because she “legally had to attend PE.” IDEA (2004) mandates that all students, regardless of disability status, receive PE instruction as a part of a free and appropriate public education, but Rowena’s experience seems to be a gross misinterpretation, or misunderstanding, of the law (reflective notes). Simply existing in the same physical space, while peers participated in PE activities, was not the same as having access to appropriate PE instruction (Haegele, 2019).

Whereas many of the comments the participants made about modifications were general in nature, one area that they identified specifically as being challenging was fitness testing. For example, Grandma, who generally thought of herself as being treated the same as her peers, reported needing to be self-reliant in creating modifications during PE activities such as fitness testing. This notion represents a conceptual ‘double edged sword’, where Grandma was happy to receive treatment equal to her peers but discussed not being able to complete certain activities which made her look incapable and led to feelings of ‘being different’ and ‘unable’. This sentiment was unsurprising, as fitness testing can spotlight the differences between students with and without disabilities, or rather those with and without normative bodies (Haegele et al., 2020). Grandma noted that while performing push-ups, for example, “I’m probably the only one in the class that has a disability, and everything is different for me… I do push-ups differently; I can’t

go all the way down." Since, to her knowledge, Grandma's PE teacher was unaware of her orthopedic impairment, she may have believed that Grandma was simply unable to meet the minimum standard for push-ups. Amelia had a similar experience, describing feeling like she "looks weird" or "people stare" while performing fitness test activities. Amelia elaborated further, noting that over the past few years there were many occasions where experiences like this became so upsetting that she asked the school to call her parents to come pick her up for the rest of the day. Amelia's experience of adopting avoidance practices with regard to fitness testing echoes student experiences as far back as 1995, when Hopple and Graham discussed how students often found ways to withdraw from the assessments whenever possible because they disliked fitness testing.

While Grandma and Amelia noted that their experiences in activities like fitness testing were challenging because of a lack of disclosure of their impairments, teachers' knowledge about students' impairments did not guarantee positive experiences. For example, Mack and Rowena, whose teachers *did* know about their orthopedic impairments, also reported a lack of modifications during these activities that made their engagement and participation uncomfortable and 'othering'. For example, Rowena described that "it makes me looks different from everyone else, and that bothers me" when describing that she was not able to perform the skills in the same way as her peers, and that she also didn't receive meaningful task modifications. Given Mack's diagnosis of osteogenesis imperfecta, colloquially known as 'brittle bones,' he was only allowed to participate in the cardiovascular endurance assessment, pushing his chair while his classmates ran to a cadence. Like Rowena, he did not feel that his participation in fitness testing was meaningful, and instead felt he was tokenized and included in the fitness testing solely because the teachers felt they "had to." He expanded that "the only one I can do is the [cardiovascular

endurance assessment], but on those days I would stay for the whole class, it was just kind of checking a box." While research examining the fitness testing experiences of students with disabilities is limited, experiences of exclusion from fitness test participation, as well as inclusion without modifications, have been described previously (Haegele et al., 2020). Specifically, much like the participants in this study, adults with visual impairments who were interviewed about their experiences with fitness testing while in K-12 school, described feeling embarrassed and recalled receiving unwanted social attention when performing fitness testing tasks (Haegele et al., 2020). This vivid recollection of feelings experienced in the past demonstrates the impact that negative fitness testing experiences may have on the perceptions of PE by individuals with disabilities several years after they have taken place.

"PE Doesn't Feel Great": Social Interactions and Perception of Self

Historically, students with disabilities have reported that their peers have lower perceptions of their capabilities in PE (Tanure Alves et al., 2020). Participants with orthopedic impairments have expressed feeling that their peers did not want to play with them because they could not walk or run (Wang, 2019), or that they weren't welcome to play with their peers because they couldn't "play soccer very well" (Goodwin & Watkinson, 2000, p. 153). As such, the extant literature appears to suggest that students with orthopedic impairments often see themselves being placed into a social hierarchy in PE based on how others perceive their capabilities. This final theme describes participants' experiences with social interactions in PE, as well as the way that participants perceived their own capabilities.

In the current study, experiences described by the participants followed a similar narrative, where participants felt as though they either didn't matter to their peers in PE or were unwanted during class activities. Highlighting this, Grandma said that "I just do my thing and

then leave. What I feel like is that nobody cares at all that I am there," and Mack described how "students will pass by me and pretend I'm not there at all or they just ignore me. It's kind of frustrating because no one really cares." Rowena believed that this lack of caring may have stemmed from her inability to physically engage in the same tasks as her peers and shared that "I think they have more fun with each other than with me in PE, since they can do similar things as each other. So, they have more fun with each other since they have more similar skillsets." She seemed disappointed by this when describing her experience, but she also appeared to be trying to remain pragmatic in an effort to justify the situation (reflective notes). Baked Bean also expressed frustration over her peers' attitudes about her capabilities, but seemed to feel a bit more self-confidence when dealing with the situation:

> When I'm on some teams, when I try my bestest and I really race or something and I lose at it, some teams are really sad about that and mad. They make me feel like I disappointed them, like made them mad or sad. So basically, they just give me a look and be like, "Okay. Well, guess we'll win next time or something." But sometimes some kids say, "Why do you go so slow?" It makes me feel mad and sad. I did the best that I could. I tried, instead of just like, sitting out for it. And then they would have less people, which means they would have less of a chance, which means they probably would lose. So, it's better with me on their team.

Not all students with disabilities, including those with orthopedic impairments, have the level of self-confidence that Baked Bean displays. Instead, repeated marginalizing interactions with peers in PE often shaped the way the students with disabilities perceived themselves and their disability (Haegele & Hodge, 2016), commonly in a negative light. This negative viewpoint was highlighted by Fitzgerald (2005), who described the experiences of a participant with an

orthopedic impairment who shared that he did not "fit in" (p. 55) to his PE class because his limbs did not work the same way as his peers. This sentiment was shared in the current study by Allister, Mack, and Amelia when discussing participating in PE activities alongside their peers without disabilities. For example, Mack shared that "the kids are a lot better than I am," and Allister reflected that that "I'm slower than everyone else. I'm just not good at it." For Mack, these negative peer interactions and feelings of self-doubt influenced his perspective of PE overall. He shared that "PE doesn't feel great because you always feel like you are the worst from everyone else," supporting the notion that peer interactions in PE can influence the quality of the entire PE experience for the students with disabilities (Holland & Haegele, 2021). For Amelia, feelings of being excluded or 'othered' led to her believing that she was simply not good at making friends. She reported not having any positive peer interactions in PE, and said that "I stopped making friends… I'm bad at making friends." These findings are interesting and have important implications, particularly in that they conflict with the generally held assumptions by PE teachers and scholars that socialization is a commonsense benefit of integrated PE for students with disabilities (Qi et al., 2016). It should be noted that while one participant in this study saw some social benefit to attending PE, the data generally did not support this notion. Although she mentioned perceiving PE to have some social benefit, Rowena still did not feel as though the social rewards made PE worthwhile, and said:

> The only real reason it is worth attending PE is because it's more of a social time where we get to talk to friends, and even then… it's not much… but that's the only reason that PE is worth it, and I'm honestly not even sure it is worth that.

Conclusions

This study examined the lived experiences of students with orthopedic impairments in integrated PE classes in the United States. In the United States, and abroad, integrated placements are generally considered a "moral imperative" (Bricker, 1995, p. 180) or "the ethical substrate of educational rhetoric" (Makopoulou et al., 2019, p. 1). Therefore, and unsurprisingly, most students with disabilities in the United States are now receiving their education, including PE, in integrated placements (National Center for Education Statistics, 2019). However, when discussing experiences within integrated PE settings with students with disabilities, including those with orthopedic impairments, research has largely shown that experiences appeared to be negative (Holland & Haegele, 2021), and included instances of social isolation (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020) and inaccessible PE settings (Li & Chen, 2012). Collectively, the reflections of the participants in this study were consistent with those expressed by students with orthopedic impairments in prior research contextualized in other countries (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020), where undesirable experiences were typified by having a lack of appropriate modifications and accommodations, a diminished self-image, and a lack of meaningful social interactions. These experiences lead to feelings of being 'less than', which resulted in some participants' subsequent withdrawal from PE and PE activities when opportunities to do so presented themselves. As such, while integrated contexts are championed as being a morally superior educational context (Bricker, 1995), it appears that practices within these settings are not yet providing educational experiences that support their adoption.

When discussing their experiences in integrated PE, the role that teachers played and the participants' relationships with their teachers bled through each of the constructed themes. In each theme, the participants considered their teachers as being important gatekeepers, who held

critical power in providing, or not providing, accommodations or modifications to allow meaningful access to activities within the integrated PE context. For example, Mack and Rowena (both of whom use wheelchairs for mobility) described being made to sit and watch their peers engage in activities because their teachers did not feel an activity was appropriate for them. Concurrently, these teachers were also seemingly unwilling to provide any accommodations or modifications to make activities more appropriate or accessible. While disappointing, it was unsurprising to learn about these experiences, as students with orthopedic impairments have often reported being physically segregated or feeling excluded and socially isolated in their PE classes (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020). It has been well documented that teachers are central to the quality of experiences for students with disabilities in PE (Holland & Haegele, 2021), and that experiencing this type of discrimination by PE teachers may contribute to peers' understanding of students with disabilities as being 'less able' (Haegele, 2019; Haegele et al., 2020). It is clear from the findings of this study that changes should be made in the instructional practices used with students with orthopedic impairments in PE in an effort to improve the quality of their experiences. To start, PE professionals should examine their own biases regarding the education of students with disabilities in integrated PE classes to determine whether they ascribe to the commonly used deficit or medical model of thinking about disabilities (Gieben-Gamal & Matos, 2017). Given that purveyors of this model view individuals with disabilities as faulty and in need of fixing (Haegele & Hodge, 2016), teachers with this line of thinking likely contribute to the negative experiences that students with disabilities continue to have in their PE classes. As we know that teachers can directly influence the quality of experience for students with disabilities in PE (Holland & Haegele, 2021), teachers must first

address their own biases and any resulting discriminatory behaviors before any positive change can take place for students with disabilities.

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Table 1

Participant Demographics

Pseudonym	Gender	Age	Grade	Race/ Ethnicity	Orthopedic Impairment	Mobility Aid(s) Used	School Setting
Allister	Male	10	5th	White	Cerebral Palsy/Hemiplegia	None	Private
Amelia	Female	12	4th	Asian	Spina Bifida	None	Public
Baked Bean	Female	10	4th	Caucasian	Above the Knee Amputee & Type 1 Diabetes	Arm Crutches/ Prosthesis	Public
Grandma	Female	13	7th	Black	Bilateral Radioulnar Stenosis & ADHD	None	Public
Mack	Male	14	9th	White	Osteogenesis Imperfecta	Manual Wheelchair	Public
Rowena	Female	11	6th	White	Col6 Muscular Dystrophy	Power Wheelchair	Public

MANUSCRIPT II

"Everybody Wants to be Included": Experiences with 'Inclusive' Strategies in Physical Education

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Abstract

This study examined how students with orthopedic impairments experienced strategies identified in the literature to support 'inclusion'. An interpretative phenomenological analysis research approach was used, and six students with orthopedic impairments (age 10-14 years) served as participants. Data sources were written prompts, semi-structured, audiotaped interviews, and reflective interview notes. Based on thematic data analysis, four themes were constructed: "It's kind of embarrassing": experiences with support; "I don't want to be different": equipment, activity, and rule modifications; "I like to be a part of the conversation": autonomy and choice in PE; and "I would rather be like the other students": discussing disability. The experiences portrayed through these themes highlighted the differential effects of these explicated strategies, where each strategy contributed to feelings of inclusion, as well as marginalization among participants. As such, the findings indicated that 'inclusive' strategies should not be considered as blanket recommendations; instead, attempts to promote 'inclusion' of students with disabilities should start with a reflexive look at the unique needs of each individual student.

Keywords: adapted physical education, inclusion, orthopedic impairment, physical disability

The Individuals with Disabilities Act (IDEA; 2004) mandates that all students, regardless of disability status, receive instruction in physical education (PE) as a part of a free and appropriate public education. For most students with disabilities, this PE instruction is provided in integrated PE settings alongside their peers without disabilities (Governmental Accountability Office [GAO], 2010; Heck & Block, 2020). Integrated settings, for the purposes of this article, are defined as placements or spaces in which students, regardless of unique educational needs, are educated together (Haegele, 2019). While movement toward the education of students with disabilities in integrated PE has become common internationally, it is not without concerns (Haegele, Wilson, et al., 2021). For example, in research examining how youth with orthopedic impairments experienced integrated physical education contexts, participants consistently reported being segregated or excluded from their peers without disabilities (Tanure Alves et al., 2020), instances of social isolation (Goodwin & Watkinson, 2000), experiences with incompetent or interfering help from peers (Goodwin, 2001), and a physical lack of access to PE settings (i.e., no ramp or lift to enter the gymnasium; Li & Chen, 2012). As such, it is unsurprising that scholars encouraged more research and research-based practical strategies that might help to promote full, meaningful access to activity participation for individuals with disabilities in integrated PE settings (Haegele, Kirk, et al., 2020).

With the growth in the enrollment of students with disabilities in integrated PE contexts and concerns about the preparation of teachers to educate students with disabilities in their classes (Lieberman, Brian, et al., 2019), has come a proliferation of the explication of strategies for students with disabilities to experience ‘inclusion’ within these settings (Lieberman, Brian et al., 2019; Whilliston, 2017). Specifically, stakeholders, such as K-12 teachers (Nagro et al., 2009; Williston, 2017), teacher education faculty members, education researchers (e.g.,

Lieberman, Brian et al., 2019), and parents (Wang, 2013), have recommended 'inclusive' strategies for practitioners to enhance educational opportunities. These strategies are often "simple, observable changes" (Haegele, Kirk et al., 2020, p. 10) intended to "foster inclusion and maximize student learning" (Lieberman, Brian et al., 2019, p. 342). Some examples of explicated strategies include (a) having students with disabilities sit or stand in the same place as their peers during instruction (Lieberman, Grenier et al., 2019), (b) providing support from a peer-buddy (Wang, 2013), or (c) collaborating with students with disabilities on activity, rule, or equipment modifications (Lieberman, Brian et al., 2019; Williston, 2017). Since teachers are central to the quality of experiences of students with disabilities (Holland & Haegele, 2021), it has been posited that teachers can improve the quality of PE by implementing these types of 'inclusive' strategies (Lieberman, Grenier et al., 2019). 16 such strategies can be found in Table 1.

To date, though, there is a paucity of research examining how students with disabilities experience PE contexts when these 'inclusive' strategies were implemented, and if these strategies helped foster feelings of inclusion. 'Inclusion' is a contentious term, that has been described as a "semantic chameleon" (Liasidou, 2012, p. 5) because it has been discussed in a variety of ways depending on the context in which it is used. For example, the PE literature has seen scholars utilize 'inclusion' to describe a physical space or placement analogous to integration (Qi et al., 2016; Reina et al., 2019), a philosophy related to the socially constructed environment within a PE class (Hutzler et al., 2005; Morley et al., 2005), as well as a subjective experience of participants within that space (Spencer-Cavaliere & Watkinson, 2010). As such, and consistent with recommendations from Graham and Slee (2008), it is important to identify our use of the term 'inclusion' to explicate our position and reveal the conceptualization that it is guiding our work. For the purposes of this study, Stainback and Stainback's (1996) interpretation

of inclusion as a subjective experience associated with feelings of belonging, acceptance, and value was adopted. According to Spencer-Cavaliere and Watkinson (2010), this interpretation of inclusion supports the amplification of the voices of persons with disabilities, as inclusion is understood as a "subjective experience [requiring] investigation from the perspective of the child who is 'to be included'" (p. 275). Thus, throughout this study, the term inclusion is used to describe the subjective experiences described by the participants (Spencer-Cavaliere & Watkinson, 2010) of belonging, acceptance, and value.

Given our conceptualization of inclusion as a subjective experience, it is critical to engage with students with disabilities themselves about their experiences to understand if they viewed PE to be inclusive. In studies that examined the inclusiveness of integrated PE classes from the perspective of persons with disabilities (Spencer-Cavaliere & Watkinson, 2010), participants generally described not feeling 'included' despite existing in the same physical space as their peers. As such, this line of inquiry appears to support assertions by Haegele (2019) that "integrated [PE] settings may not be providing inclusive experiences for students with disabilities" (2019, p. 394). Challenging experiences within integrated settings appear to be informed by instances of teasing and limited peer engagement (Spencer-Cavaliere & Watkinson, 2010); feelings of incompetency, low self-esteem, and being 'on display' (Haegele, 2019); restricted participation and a lack of appropriate accommodations (Haegele, Kirk et al., 2020).

Based on how students with disabilities reflected on their experiences in integrated PE settings, it appears there is a clear need for practical strategies that can enhance the inclusiveness of these experiences. Of concern though, is that no research exists that explored how students with disabilities experienced PE when these strategies were implemented. By referring to these strategies as 'best practices' and promoting their use by physical educators without having this

data to support their benefits, it is possible that students with disabilities may be unintentionally harmed, as "a lack of awareness of the complexities of individual experience of disability among policy makers and practitioners can engender practices which, however well intentioned, have the potential for unintended and often un-noticed consequences for the young person being 'included'" (Aktins, 2016; p. 8). More research is needed that investigates the experiences of students with disabilities in integrated PE settings to understand how these practices were perceived on the inclusiveness of their experiences. That is, research is necessary that examines whether these 'inclusive' strategies can help support feelings associated with inclusion (i.e., acceptance, belonging, value) among those with disabilities from their embodied, first-person perspectives. As such, the purpose of this study was to examine how students with orthopedic impairments experience strategies identified in the literature to support 'inclusion'.

Method

We conducted this study through a social constructivist lens, with the belief that individuals cultivate subjective meanings of their experiences as they attempt to develop an understanding of the unique contexts within which they live (Creswell, 2014). As such, we sought first to understand the context or setting in which participants exist and then to gather information about their experiences (Creswell, 2014). Our own subjective truths inevitably influenced the data collection and analysis processes as well; therefore, we must first explicitly state our own personal and professional positionalities (Hopkins et al., 2017). To that end, the authors all possess backgrounds in education and education research, with expertise in both qualitative and quantitative inquiries using interviews, observations, and survey methodologies. The first three authors have extensive backgrounds in both PE and adapted PE/physical activity and the fourth has vast experience working with students with orthopedic impairments and has

served on several collaborative research teams with an adapted physical education focus. All authors are financially independent and do not identify as members of the disability community; however, two of the authors do have immediate family members who identify as having a disability.

Research Approach

We used an interpretative phenomenological analysis (IPA) research approach, in alignment with a social constructivist worldview, to examine the PE experiences of students with orthopedic impairments with strategies intended to promote 'inclusion'. IPA is a qualitative research approach with two central aims. First, researchers attempt to understand the participants' world and adequately describe specific events from their perspective (Larkin et al., 2006). In this study, the specific events of interest are the participants' PE experiences. Secondly, researchers must perform an interpretative analysis where they seek to understand and describe the meanings and feelings that participants attribute to the events of interest (Larkin et al., 2006). IPA has roots in phenomenology, hermeneutics, and idiography (Smith et al., 2009) in that it closely examines the lived experiences of the participants from their own unique lens, emphasizes that the researcher is an active participant in a two-stage hermeneutic process, and seeks not to make generalizations about groups or populations, but rather to understand the unique experiences of each individual participant (Smith et al., 2009).

Participants

To recruit interview participants, the first author sent a recruitment packet with a welcome letter, a description of the research purpose and protocol, and her contact information, to personal contacts via email. Personal contacts included former colleagues (adapted physical education teachers and physical therapists), adapted sport coaches, and parents of youth with

orthopedic impairments. She also posted an abbreviated version of the welcome letter on her personal social media accounts to reach a maximum number of potential participants. Both the welcome letter and the social media posts indicated that interested parties should contact the first author directly to obtain more information about the study. She then distributed a consent form, assent form, and demographic questionnaire via email to all individuals who expressed interest. The demographic questionnaire included open-ended questions about the participants' identities (age, gender, race/ethnicity, disability status) and availability for interviews, as well as closed-ended questions about school experiences (type of school and PE class attended) to determine whether those interested were eligible for participation in the study. Since all potential participants were under the age of 18, the first author communicated with and obtained consent from parents or guardians before speaking with the participants themselves. Once eligibility was determined, a one-on-one meeting was held via video chat to answer any questions that the parents or guardians had prior to obtaining consent. At the end of the meeting, each parent then signed and returned the consent form to the first author via email. When consent was obtained, the first author conducted a one-on-one video call with the participants themselves, reading the assent form aloud and obtaining verbal assent. At this time all potential participants who assented to participate were enrolled in the study. The Institutional Review Board at the authors' university reviewed and approved these research protocols.

A sample of six interview participants (aged 10-14 years; four females and two males) was purposively sampled for this study to include those who: (a) were currently enrolled in a K-12 school in the United States, (b) were between the ages of 10 and 18 years old, (c) were currently enrolled in an integrated PE class, (d) self-identified as having an orthopedic impairment as defined by the IDEA (2004), (e) did not have an intellectual disability/IQ of less

than 70, and (f) were willing to complete two interviews that were approximately 60- to 90-minutes each. Participation was not limited by specific gender, race/ethnicity, or socioeconomic categories. Three participants identified as White, one as Caucasian, one as Black, and one as Asian. Three participants utilized mobility aids for ambulation, and three ambulated independently without mobility aids. Of those who used mobility aids, one student utilized a manual wheelchair for mobility, one student utilized a power wheelchair for mobility, and one student utilized arm crutches for mobility. All participants attended integrated PE classes in either public (n = 5) or private (n = 1) K-12 schools. The participant that attended a private school at the time of data collection had been enrolled in public school for his entire education other than the current school year. Participants were offered the opportunity to select their own pseudonym for data presentation purposes to increase confidentiality. Three of the six participants elected to choose their own (Ramen Noodle, Agnes, and Alice), and the first author selected the remaining three. These names, as well as additional demographic data can be found in Table 2.

Data Collection

Data were collected in three ways for this study. First, each participant was sent a written prompt via email. Participants were instructed to write as much or as little as they wanted to answer the question about their experiences. The written prompt read “please describe the degree to which you feel included in your PE classes, as well as any strategies that your PE teachers use that help you to feel more or less included”. Participants were given one week to complete the prompt, which allowed them time to consider their answers and reply with more detail than they might in the interviews. The written prompts were distributed prior to the interviews so that the first author could ask clarifying questions or probe further into the responses if needed during the

interviews (Alred et al., 2019). Participants were permitted to handwrite, type, dictate to a scribe, use assistive technology, or audio record their responses, before returning them to the first author via email.

After the responses to the written prompts were returned, the first author and participants identified a day and time that they were both available to engage in one, semi-structured video call interview. Due to technological difficulties, one interview was completed over the phone. Interviews lasted between 23-and 57-minutes, with an average of 39-minutes. Video interviews were selected as the data collection type for this study due to the diverse geographical locations of participants and restrictions preventing in-person interviews related to COVID-19. The interviews for this study followed a semi-structured interview guide with questions that were developed based on strategies described on education websites (Nagro et al., 2016; Wang, 2013; Williston, 2017), articles in PE practitioner journals (Ellis et al., 2009; Lieberman, Grenier et al., 2019), and an 'inclusion' rating scale for PE (Lieberman, Brian et al., 2019). Based on these resources, 16 specific strategies were selected as target strategies. Information about these 16 strategies can be found in Table 1. Sample interview questions included: (a) how have you felt when your PE teachers made equipment modifications or changes for you in your PE class? and (b) how have you felt about being given choices in the activities you participate in or the modifications you receive in your PE class?

After the initial construction of the interview guide, it was reviewed by a panel of experts, including one adapted PE researcher who primarily conducts qualitative research using the IPA approach, one child with an orthopedic impairment, and one adapted PE teacher. The first author sent each panel member a document outlining the purpose of the study and research questions, along with the interview guide, and asked for feedback as to the relevance and clarity

of questions. In total, the panelists recommended editing two questions for clarity. The first author then infused those suggestions into the final draft of the interview guide. The first author began each interview by describing the purpose of the study and her background to expose her positionality before beginning the questions on the interview guide. The guide was then used flexibly throughout the interviews to allow the participant to dictate the magnitude and order of the discussed topics (Smith & Sparkes, 2017), while also serving as a checklist to ensure that the same general topics will be addressed by all participants.

During and after each interview, the first author took reflective interview notes in the margins of the interview guide. These notes represented the third form of data for this study and reflected the researcher's feelings about the tone of the interview, the rapport between the first author and the participant, topics and/or quotes that stood out as particularly meaningful, and thoughts about potential themes (Smith & Sparks, 2017). During this note taking process, the first author was able to reflect on and identify any possible personal biases that may have affected the interview or the following presentation of the interview data. Finally, the reflective note taking process allowed the first author to conceptually return to the context of the interview when reviewing the data during the analysis process (Walker et al., 2013).

Data Treatment and Analysis

Each audio recording was transcribed verbatim upon completion of the interviews. The data were then treated using a four-step IPA data analysis procedure (Smith et al., 2009). First, the first author immersed herself in the data by reading and rereading the transcriptions, written prompts, and reflective interview notes multiple times. The purpose of this step was to familiarize herself with the data, which allowed her to make reflective, interpretative notes and comments on the initial emergence of themes. Second, the first author reduced the data into

emergent themes by highlighting key phrases and developing meaningful labels with which to code them. During this step, the first author made additional interpretative notes. To aid sense-making, the first author drew on the second author as a critical friend to check and challenge initial emergent themes and to deepen the first author's engagement and understanding of the participants' experiences (Tracy, 2013). Third, the first author compared emergent themes within each participants' documents to form clusters of related themes. Lastly, the first author compiled overall descriptions of themes from patterns and connections detected across the entire participant group. Themes were then reviewed by the first and second authors to ensure coherence within each theme and that the content was reflected by theme titles.

Quality Assessment

We followed four principles for assessing the quality of qualitative research as presented by Yardley (2000) and recommended by Smith and colleagues (2009) for use in IPA studies: (a) sensitivity to context, (b) commitment and rigor, (c) transparency and coherence, and (d) impact and importance. According to Yardley, sensitivity to context addresses the context of theory and related literature, social and cultural contexts, and the balance of power between the researcher and the interviewee (2000). We addressed these concepts by conducting a thorough review of related literature and selecting an appropriate framework for the study, beginning the interviews with an explicit description of the first author's positionality, and carefully considering the role of the participant as an expert in every stage of the study's design. Yardley described commitment as the responsibility of the researchers to have a prolonged engagement with the topic, develop competence in the methods used, and immerse themselves in the relevant data; and rigor as the thoroughness of the data collection and analysis processes (2000). We addressed commitment and rigor by carefully identifying inclusion criteria for the participants that aligned

with the research questions and research approach, and by employing appropriate and meaningful data analysis procedures. Transparency and coherence relate to the version of reality that is constructed within the resulting manuscript (Yardley, 2000). We demonstrated a commitment to transparency and coherence by selecting appropriate participants to detail the phenomena (i.e., students with orthopedic impairments themselves rather than stakeholders); explicitly describing the data collection, data treatment, and analysis protocols; explicitly identifying positionality, potential biases, and reflexivity; and presenting verbatim textual representations of the participants' accounts (Yardley, 2000). The final principle will be determined by those consuming this manuscript, as the impact and importance of qualitative research lies in the authors' ability to communicate the content as such to the reader (Yardley, 2000).

Results

Three interrelated themes were constructed based on the data analysis: "It's kind of embarrassing": Experiences with support; "I don't want to be different": Equipment, activity, and rule modifications; "I like to be a part of the conversation": Autonomy and choice in PE; and "I would rather be like the other students": Discussing disability. In each theme, participants described either and/or both positive or negative experiences with teachers who either did or did not implement the suggested strategies. While the participants were questioned about all 16 strategies listed in Table 1, they either had no experience with, or neutral feelings about, half of the strategies. As such, experiences related to arrival/departure instruction, warm-ups, differentiation, demonstrations, fitness testing, and feedback do not appear in the results below. Each of the eight remaining topics evoked salient memories associated with feelings of varying degrees of 'inclusion' in participants' PE classes, and appear throughout this section.

“It’s Kind of Embarrassing”: Experiences with Support

The engagement of support personnel, in the form of paraprofessionals, teacher aids, and/or adapted PE teachers, in the integrated PE space was among the most common suggestions for ‘inclusive’ strategies in the professional literature (Lieberman, Brian et al., 2019; Williston, 2017). This suggestion was supported by Phillip’s experiences, as he reported having adult support provided to him by either an aide or physical therapist who was actively engaged with him throughout PE and helped him to feel safe and included. He shared:

> It makes me feel included more to have an aide because they are worried about my safety at all times. When I was younger and my teacher tried harder to include me, my aide only had to monitor some things, because everything was already relatively safe. But as things were getting more dangerous for me when my teachers stopped making modifications to things, they would have to be with me more. Sometimes my physical therapist comes and helps modify things too and that helps because then I don’t have to worry about possibly hurting myself.

It is important to note that Phillip’s perspective and concern over safety may have been unique due in part to his diagnosis of osteogenesis imperfecta or ‘brittle bones’ (reflective notes), as well as the multiple injuries he experienced in PE over the years (reflective notes). Alice had a somewhat different perspective and recalled feeling more included when her aide was *not* actively involved with her throughout her entire PE class. Instead, she felt it benefitted her most when the aide sat off to the side and waited until she requested help. Alice explained how grateful she was to have support that was flexible and allowed her to retain some control:

> They do activities with me sometimes and they help me do some of the things I wouldn’t be able to do otherwise. I’m grateful that I have someone who is able to help me and I’m

> glad that I'm able to be included in it with that way. They sit to the edge until I need help, they wait for me to tell them that I need something. That makes me feel very glad, makes me feel good that I'm able to do and decide that stuff for myself.

Interestingly, while Alice described positive experiences attending PE with her aide, she had strong negative feelings about PE classes that her adapted PE teacher attended. Alice mentioned him several times throughout the interview, each time relating his presence to feelings of embarrassment, discomfort, and decreased value and acceptance (reflective notes). Alice described how:

> Coach H makes me feel less included because he has me do other exercises or he doesn't have me do things right. He doesn't have me do things similar. He does not treat me similar to everyone else. He treats me like I'm younger than I am. With him I usually do things off to the side or in a different room, but I prefer being in a separate room with him because I would rather not be seen doing something so different from everyone else, especially when he tells me to do something like patty-cake. Though if he is called an adapted PE coach, shouldn't he be working on making PE more adapted instead of working off on the side with me?

In contrast to Phillip's positive experience with paraprofessional support staff, Alice's narratives did not support the use of this 'inclusive' strategy. Instead, Alice's desire to be in a separate room so that her peers would not see her working with her adapted PE teacher was similar to the feelings that Ramen Noodle and Gordon had about paraprofessional support in their PE classes. Gordon shared that "having another adult makes you feel like you're the center of attention and I don't like to be the center of attention," and Ramen Noodle described how when a paraprofessional was supporting her, "I think that other people think I can't do things by myself,

even though I can." In each of these instances, the participants viewed the support they received from adults as having a negative impact on the perceptions that their peers had of them, hinting that any increased access to the curriculum achieved in using this strategy was not worth the negative influence on feelings of acceptance or belonging (reflective notes).

Ramen Noodle's disdain for having paraprofessional support during integrated PE influenced her to favor peer buddies, another commonly explicated 'inclusive' strategy (Wang, 2013). She shared that:

> Adults are for helping other people and it makes me seem like I can't help myself, and it is kind of embarrassing. I'd rather have a friend or classmate helping because it's like, 'oh that's just a friend helping her out' and you don't feel ashamed with that.

Alice, on the other hand, felt it was *more* challenging to solicit help from a peer than an adult, because "a person would rather have your friends see them as able to do things", hinting at concerns over being accepted by her peers. While their preferences and experiences were in opposition to each other, the underlying feeling driving their perceptions was centered on social capital and peer perceptions rather than access to activities in the PE curriculum (reflective notes). Gordon also felt that having a peer buddy assigned to him was not desirable, but for a slightly different social concern. He did not want his peer to miss out on his own PE experiences, and said that "I don't like it because then he isn't doing the exact same thing everyone else is doing because he is helping me." Ramen Noodle, Alice, and Gordon all seemed unable to separate their own needs from concerns over how these types of 'inclusive' strategies might be perceived or experienced by their peers without disabilities (reflective notes). In fact, Phillip was the only participant to mention his own PE experience when discussing peer buddies. Similar to his feelings on adult support, Phillip's main concern was his safety. He agreed with Alice and

Gordon that the implementation of peer supports was not beneficial, but for a different reason. Phillip described that "having a peer buddy isn't helpful because with an aide there is a lot of medical stuff, so other students don't really know how to help me."

"I Don't Want to be Different": Equipment, Activity, and Rule Modifications

Like engagement of support personnel, equipment, activity, and rule modifications proliferate 'inclusive' recommendations intended to help enhance participation in PE in the extant literature (Ellis et al., 2009; Nagro et al., 2016). Much like the experiences described in the first theme, participant narratives surrounding the concept of modifications varied, often in direct contrast with one another. Generally, participants felt that meaningful modifications that did not change the nature of an activity promoted feelings of 'inclusion', but that inappropriate or nonexistent modifications led to feelings of exclusion or marginalization.

Alice and Phillip both reported having teachers who implemented this strategy, and both felt that it enhanced their feelings of acceptance, belonging, and value, supporting the strategy's use in integrated PE classes. While whole-group modifications were preferred, Phillip felt more valued and included when his teachers simply made an effort to modify activities, regardless of what the outcome was. He explained that:

> Having modifications helps me feel more included, especially when they give the whole class the same modification. I feel good about the changes that they make when I don't stand out. But I would also be okay if it was just me that had something different because I would know that they were trying to include me.

Alice, however, was a bit more discerning in her approval of modifications. She reported that modifications only helped her to feel more included when she was able to do an activity in a manner similar to her peers, giving her a sense of legitimate participation (reflective notes). She

described contrasting experiences with modifications, one being a throwing activity that allowed her to be successful and competitive alongside her peers, and the other being a soccer activity that left her questioning the value of her participation. She described that:

> Some changes to activities make me feel more included because I'm doing the same thing. During games when we throw the ball at people, I am allowed to get closer to people in order to hit them. It makes me feel more included partly because it's fun to be able to hit people with the ball. So, you're successful, and it's fun. I like it because it's a competitive game where you're really able to win and participate in it. Some other modifications just don't work really very well. Like in soccer, they put a big plastic thing in front of my chair and the ball would be too small and would catch under my chair. Plus is takes a lot of work to get the big plastic thing on and if you don't have it just the right way to hit the ball it doesn't work. If what I'm using is different than everyone else, I'm not really playing the same game anyway, it's different.

Ramen Noodle and Gordon also reported negative experiences with the utilization of this 'inclusive' strategy in their PE classes; however, their perspectives targeted principle rather than about specific modifications they experienced (reflective notes). Ramen Noodle, for example, shared that "I don't like things that change the activity. If the teacher changed [the activity] I wouldn't like it and I'd be like 'oh, this is boring, I want to do what everyone else is doing." Similarly, Gordon explained how modifications diminished his sense of belonging, sharing that "I feel left out when the teacher changes activities for me. I do not want an advantage. I would rather not win and not have an advantage than have a change made for me."

Whereas Alice, Ramen Noodle, and Gordan each provided examples of how the utilization of modifications made them feel less included, it is also important to note that a lack

of appropriate modifications was also noted as leading to feelings of embarrassment, confusion, and pointlessness. Maggie, for example, wished that her teachers did provide modifications to activities, and felt that she was on display even more when things were not adapted. She wrote:

> When things come up that I can't participate in, I get embarrassed. People want to know why I can't do it. They stare. I wish I wasn't in PE on those days and wish I was somewhere else. I don't want to be different and when I can't do something or have to do it really differently it makes me embarrassed (written prompt).

Phillip described similar feelings, and described a situation where the lack of modification excluded him from an activity (reflective notes), yet nothing was done to remedy the situation:

> During year my PE teacher handed me and my personal aide a jump rope. I was very confused since I utilize a wheelchair daily and jumping rope is impossible. Overall, I have never truly felt included in PE (written prompt).

When asked to elaborate on this experience, Phillip went on to explain that he would have preferred participated in an alternate activity rather than sitting and watching his peers for the entirety of the jump rope unit. Alice's experiences echoed this sentiment, as she agreed that in some circumstances, doing something different was favorable to an activity that was simply inaccessible. Alice wrote that:

> I personally feel that if it is not something I'm able to do in a similar fashion to my peers I should be given an alternate activity. One activity like that is run day. On run day everyone runs around the field. During that I drive around the field in my chair. There is no point to it since all I am doing is driving around in big circles (written prompt).

More than anything, the participants in this study wanted to feel like valued and legitimate, successful members of their PE classes, and while modifications were one tool utilized in an

attempt to promote these feelings, they did not provide a clear solution (reflective notes). Rather, the findings supported modifications as an 'inclusive' strategy only when they were implemented meaningfully and with respect to the individual student's needs and desires (reflective notes). Ramen Noodle's response to the written prompt seemed to best summarize the collective feelings of the group, as she wrote "I don't want to sit out! I want to play the games with my friends" (written prompt).

"I Like to be a Part of the Conversation": Autonomy and Choice in PE

The concepts of autonomy and choice were discussed with regard to both modifications and establishing teams and partners in PE. The relevant strategies discussed in this theme were those that allowed the students with disabilities to collaborate with their teachers to identify potential modifications (Lieberman, Grenier et al., 2019; Nagro et al., 2016), and for the teacher to establish partners and teams for activities rather than allowing students to self-select their groupings (Lieberman, Brian et al., 2019). Overall, the participants supported the use of both of these strategies, with few reporting positive experiences with their implementation and most reporting negative experiences without their implementation.

While modifications were scarce in the recollections of most of the participants (reflective notes), Agnes, Alice, and Maggie all agreed that having some choice in the modifications they used, or in the activities in which they participated, had the potential to increase feelings of inclusion. Agnes shared that "having choice in PE made it better," and Maggie said that "I like when I have two choices and I get to pick what I want to do." Alice expanded a bit more on the concept of collaboration with her teacher, saying that "I would rather be asked whether there is another way to do things, I like to be a part of the conversation and help come up with solutions." Phillip unfortunately, could not recall a time that he was given an

opportunity to weigh-in on his experience, but echoed Alice's desire to collaborate with his teachers. He said that "my teachers in middle school didn't give me any choices or ask for my input. I would have been comfortable having conversations with them and providing ideas about things that might help instead of just not being included." The participants in this study seemed primed and ready to advocate for themselves and aid in enhancing their participation in PE, but unfortunately, it appears they were not often given the opportunity to do so (reflective notes).

Student input was also discussed in relation to the establishing of partners and teams in PE, and interestingly, none of the participants recalled having an experience where their teachers implemented the recommended 'inclusive' strategy. Instead, Alice, Maggie, and Ramen Noodle described the feelings that they associated with having to find their own partners and groups to work with in PE. While their experiences did vary, the feelings that they described seemed to support the idea that allowing students to choose their own groups was not a beneficial practice. Alice was in favor of selecting her own groups and said that "it helps me to feel included that it's easy for me to find a partner," whereas Maggie and Ramen Noodle disagreed. Maggie shared that "it's kind of hard when I have to pick my own. I don't know where to go. I like when teachers pick." Ramen Noodle's similar feelings about this topic were salient enough that she wrote about them on the written prompt before even engaging with the interview questions, noting "when they are doing something where they are picking people, I am not usually picked. This makes me feel sad that I'm the last one to be picked". Ramen Noodle then reiterated these feelings of non-acceptance when asked about her experience during the interview, saying that "I don't get picked as often as everyone else. Makes me feel bummed. Makes me feel less included. I never get picked. I'm always the last one to get picked for a team, makes me feel sad." A common thread in the first two themes was the participants' fear of negative peer perceptions,

first with support personnel drawing attention to them, and then with concerns about looking different or standing out when participating in activities. In each, participants perceived that their peers might see them as 'less than' due to their disability status, a fear that may have been warranted given the data in this current theme (reflective notes). Maggie and Ramen Noodle's difficulty finding partners and teams in their PE classes, when left to their own devices, suggested that their peers *do* possibly view them as less capable or desirable of a teammate.

"I Would Rather be Like the Other Students": Discussing Disability

The final theme addresses the suggestion that teachers should discuss a student's disability status both with them (Wang, 2013), and with their peers (Williston, 2017). Among the participants, only Ramen Noodle had a conversation about her orthopedic impairment with her teacher at the start of the school year and found it helpful. She explained that:

> Okay, well they asked like what I needed and if there was anything that I needed, just come up to them and tell them. And we talked about the stuff that I needed, and it was mostly with my mom and not me. Sometimes they'd ask me one or two questions though and then I'd answer it. I felt like they just wanted to know that if I needed help with anything, just come and ask. I thought it was helpful.

Not only was Ramen Noodle the only participant to have experience with this strategy, but she was also one of only two participants who believed it to be beneficial. Phillip, who largely described feelings of exclusion, an inability to participate, and a lack of control over his experiences in PE, expressed positive feelings toward disability disclosure. Phillip seemed to crave some collaboration and communication with his PE teachers (reflective notes) as he shared that:

> None of my teachers have asked me about my disability. I think only one teacher had ever heard of what it was. I would feel more included if they asked me about what I need and how I could participate more.

In contrast, Gordon, Agnes, and Maggie did not support the utilization of this 'inclusive' strategy and felt positively about not discussing their disability with their teacher. Maggie was glad that her teachers did not talk to her or ask her questions and said that given the choice, she would want to share the bare minimum amount of information with them (reflective notes). She said that "I do not want to talk to my teachers about having spina bifida. I just want them to know that I can't do running." Likewise, Gordon felt relieved that his teachers did not address his orthopedic impairment with him. In his written prompt, Gordon attributed his feelings of inclusion in his PE class to this, and wrote:

> I like when teachers don't talk to me about my disability and just treat me like everyone else. I like that they do not treat me differently because I do not like being singled out. I do not need much assistance in the games we play, and they treat me just like everyone else.

Gordon expanded on this further during his interview, saying that if his teachers did ask, he also gave them as little information as possible, saying "I would not be open to having a conversation with my teachers about my disability. If they asked, I would just tell them 'my doctor told me to wear this leg brace and arm brace, bye!'" Agnes thought positively about her teacher's lack of inquiry about her orthopedic impairment and felt more included because they did not seem to know about her disability (reflective notes). Agnes shared that even if they did ask, "I would not tell them. I'm scared that I'm going to be treated differently." Gordon and Agnes' concerns about being treated differently were validated by Alice's account of her own experiences

(reflective notes). Her PE teacher approached her with questions about her disability, and she preferred that they had not. She explained that:

> I would rather be able to focus on my work instead of answering a bunch of questions. I like to be able to be immersed in my work and I like to be able to do it similar to what everyone else is. I would rather be like the other students and just get on with my day.

Gordon's and Agnes' level of comfort with the idea of disability disclosure seemed to track with their narrative responses in the previous themes (reflective notes). They each described not wanting modifications to be made for them. Specifically, Gordon felt most included when he did not have any sort of support personnel and Agnes enjoyed having choice in the activities she participated in during PE. They both appeared comfortable with their level of participation without the implementation of "inclusive" strategies; therefore, they did not see a benefit to discussing their orthopedic impairments with their teachers. Although there was some disparity among the participants regarding whether they wanted to discuss their disability with their teacher, there was one 'inclusive' strategy that unanimously elicited negative responses from those who had experience with it.

Gordon, Alice, and Phillip were vehemently opposed to the practice of a teacher discussing disability with students without a person with a disability present (reflective notes). Gordon's opposition to this idea was even stronger than to the possibility of a one-on-one conversation with his PE teacher (reflective notes), explaining that if a conversation about his disability was *required,* that the information should come from him. He described an experience from years earlier where a teacher discussed his disability with his classmates in his absence Gordon felt embarrassed that the discussion did not provide his classmates an accurate representation of his disability, thus he does not like the idea of it happening again in the future.

He said that “I would rather tell people myself, face-to-face. If the teacher doesn’t know everything, she could say something that’s not true.” For Alice and Phillip, being talked about rather than included in the conversation, led to peers treating them differently and lasting experiences of marginalization (reflective notes). Phillip described an experience when:

> I’ve had teachers tell my classmates things about my disability when I’m not there, and then everyone treats me differently, like I couldn’t do as much, or they had to be nice to me. They thought they were being helpful, but it just made me mad.

Alice, too, experienced a shift in treatment after her teacher’s seemingly well-intentioned talk with her peers (reflective notes). Like Gordon, Alice stated that if the conversation had to occur, she would rather be involved, sharing that “nobody wants to think that a group of people’s talking about them when they’re not there, and now people give them special treatment and they don’t know why.”

Discussion

This study examined how students with orthopedic impairments experienced strategies identified in the literature to support ‘inclusion.’ The results of this study aligned with previous findings in that participants experienced restricted participation and a lack of modifications (Haegele, Kirk et al., 2020), felt excluded due to limited peer engagement (Spencer-Cavaliere & Watkinson, 2010), and experienced feelings of being ‘on display’ (Haegele, 2019). This study’s unique contribution to the literature, however, was the discussion of these participants’ experiences with regard to specific ‘inclusive’ strategies implemented by the participants’ PE teachers. Collectively, the participants’ experiences supported several strategies, such as offering student choice with regard to activities and modifications and having teacher generated partners and teams rather than those that were student selected, as being those that could

contribute to feelings of acceptance, belonging, and value. Conversely, the participants recalled that other strategies, such as close proximity adult staff supervision and teachers discussing their disability with their peers without their knowledge or input, may be more marginalizing than inclusive.

In this study, we adopted a conceptualization of inclusion that was aligned with a subjective experience associated with feelings of belonging, acceptance, and value. Generally, belonging, acceptance, and value are considered fluid and contextual, with no one individual experiencing them universally at all times (Walker, 1999). As such, a person may experience belonging, acceptance, and value differently in each unique context and phenomena in their life (integrated PE classes, for example). Generally, participants in this study described a lack of belonging, acceptance, and value, regardless of the implementation of 'inclusive' strategies. Instead, narratives in each theme portrayed experiences of fear of 'standing out' or being 'othered,' such as Maggie's description of feeling watched when unable to perform PE tasks in the same manner as her peers. The participants' narratives often returned to concern over how capable or desirable their peers perceived them to be, rather than confidence in their place amongst the group, suggesting that feelings of belonging, acceptance, and value were scarce. The findings were consistent with the idea that PE is often an environment where students with disabilities experience negative social interactions with both teachers and peers, making it a class where feelings of belonging and inclusion are unlikely to occur (Holland & Haegele, 2021).

According to Atkins, "the notion that inclusion is something that can be reduced to a set of strategies or inspection criteria is concerning" (2016, p. 8). This assertion is supported by the findings of this study, where the varied experiences that participants had with these 'inclusive' strategies suggested that however well intentioned, a one-size-fits all approach to integrated PE

is not appropriate, and that blanket suggestions as to how to 'include' students cannot, and should not be made (Haegele, Kirk et al., 2020). Further, when 'inclusive' strategies are applied universally, there is potential for unintended harm to the person being 'included' (Atkins, 2016). Indeed, this inadvertent consequence was seen with the participants in this study. Alice, for example, felt belittled and embarrassed by the modifications and activities that her adapted PE teacher presented to her. Therefore, while this teacher applied an 'inclusive' strategy to his work with her, the implementation of the strategy fell short. This teacher's failure to engage in reciprocal conversations with Alice about her own feelings of success and belonging throughout the instructional process contributed to her feelings of being excluded and reinforced the inequities that she was already facing (Haegele, 2019). Rather than silencing and objectifying students by assigning them to passive roles in their own educational experiences (Shah, 2007), and using cookie-cutter sets of 'inclusive' strategies, teachers must instead be reflexive to each individual student's needs and provide opportunities for students to play an active role in the education process (Davis & Watson, 2001).

Among the strategies discussed with participants, it is important to note that one received universal, fervent opposition; the practice of teachers discussing their disability without them being present. For the participants, this 'inclusive' strategy led to marginalizing experiences, where they suddenly felt like they were being treated differently by their peers without knowing the cause. Rather, the participants (e.g., Gordon, Alice) expressed a desire to represent their own realities should a teacher ever feel the need to share information about them with their classmates. Interestingly, the use of disability simulations, an 'inclusive strategy' often implemented at the post-secondary level, has received parallel feedback from individuals with disabilities in recent years (Leo & Goodwin, 2016). In both the K-12 and postsecondary versions

of this strategy, an adult, presumably without a disability, shares disability information with a class full of students (also without disabilities) in an effort to reduce prejudice and improve attitudes toward individuals with disabilities (Leo & Goodwin, 2016). Instead, the lack of disability representation in these strategies can impose "ableistic norms" and perceptions of inability (Leo & Goodwin, 2016 p. 169) on the part of those with disabilities, resulting in increased negative perceptions on behalf of those without disabilities (Leo & Goodwin, 2013). The literature, in combination with the results from this study, provide support for the recommendation that disability should not be discussed without disability representation present.

Conclusion

The purpose of this study was to examine how students with orthopedic impairments experience strategies identified in the literature to support 'inclusion.' Four themes were constructed which portray varying degrees of feeling 'included' based on the specific context surrounding each participants' experiences. Overall, the themes did not support the blanket use of any suggested 'inclusive' strategies, and instead suggested that the use of some strategies should be reconsidered. More specifically, the participants in this study felt marginalized when their teachers discussed their disability status with their peers without their knowledge. Thus, PE teachers should look to collaborate with their students with disabilities to co-construct 'inclusive' practices that are appropriate in each unique situation (Haegele, Kirk et al., 2020).

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Table 1

'Inclusive' Strategies for Integrated Classes

Topic	Definition
Activity Partners	The student with a disability should be partners with a peer during activities instead of an adult staff member.
Arrival/Departure	Ensure that the student with a disability arrives to and leaves from PE at the same time and with their peers without disabilities.
Autonomy*	Allow the student with a disability to have choice about the activities, equipment, and rules they engage with in PE.
Demonstrations	The student with the disability should be asked to demonstrate skills for the class as often as students without disabilities.
Differentiation	Differentiate instruction for students with disabilities, including but not limited to, providing additional demonstrations or alternate instructions.
Disability Discussion*	The teacher and student with a disability should have a discussion about the student's disability and needs in their PE class.
Discussion with Peers*	The teacher should have a discussion with students without disabilities about 'inclusion' and how to treat the student with a disability.
Feedback	Students with disabilities should receive the same type and frequency of feedback as their peers without disabilities.
Fitness Testing	Students with disabilities should be assessed at the same time and in the same location as peers without disabilities.
Instruction	Ensure that the student with a disability is sitting or standing with their peers without disabilities when instructions are being given.
Modifications*	Provide modifications to rules, activities, or equipment for the student with a disability.
Non-Paraprofessional Adult*	Provide support from adapted PE teacher, occupational therapist, physical therapist, classroom special education teacher, or parent for the student with a disability.
Paraprofessional*	Provide hands-on paraprofessional support for the student with a disability.
Partner and Team Selections*	Partners and teams should be chosen by the teacher, not by the students.
Peer Buddy*	Assign a peer-buddy or peer-helper to the student with a disability.
Warm-Ups	Implement warm-ups for the entire class that are duration based rather than repetition based.

Note: *indicates strategies that evoked salient memories and were included in the analysis.

Table 2

Participant Demographics

Pseudonym	Gender	Age	Grade	Race/ Ethnicity	Orthopedic Impairment	Mobility Aid(s) Used	School Setting
Agnes	Female	13	7th	Black	Bilateral Radioulnar Stenosis & ADHD	None	Public
Alice	Female	11	6th	White	Col6 Muscular Dystrophy	Power Wheelchair	Public
Gordon	Male	10	5th	White	Cerebral Palsy/Hemiplegia	None	Private
Maggie	Female	12	4th	Asian	Spina Bifida	None	Public
Phillip	Male	14	9th	White	Osteogenesis Imperfecta	Manual Wheelchair	Public
Ramen Noodle	Female	10	4th	Caucasian	Above the Knee Amputee & Type 1 Diabetes	Arm Crutches/ Prosthesis	Public

CHAPTER V: SUMMARY AND CONCLUSIONS

Students with disabilities are being educated in general, integrated PE classes with their same aged peers without disabilities more so now than ever before (GAO, 2010). Unfortunately, many students with disabilities have reported being segregated or feeling excluded during these integrated PE classes (Bredahl, 2013; Fitzgerald, 2012; Goodwin & Watkinson, 2000; Tanure Alves et al., 2020). To date, little is known about how those with orthopedic impairments experience integrated PE, as no research on the perspectives of students with orthopedic impairments toward PE had been conducted in the United States prior to the studies included in this dissertation. In addition, while a plethora of strategies are promoted as encouraging 'inclusion', we know very little about how students with orthopedic impairments experience these strategies. The studies in this dissertation aimed to further examine the perspectives of students with orthopedic impairments toward integrated PE classes, as well as whether the utilization of any particular strategies or practices contributed to students feeling more or less 'included'.

The purpose of the first study was to explore the lived experiences of students with orthopedic impairments in integrated physical education classes. An interpretative phenomenological analysis research approach was used, and six students with orthopedic impairments (age 10-14 years) served as participants. Data sources were semi-structured, audiotaped interviews and reflective interview notes. Based on a thematic data analysis process, three themes were developed. The first theme, "without it, they probably would like, just treat me normal": visibility, disclosure, and expectations, depicted the feelings that participants had about whether to disclose their disability status to their PE teachers, as well as experiences in PE with teachers who did or did not know about participants' orthopedic impairments. Many of the

participants felt uneasy about the concept and feared being treated differently, excluded, or marginalized once the teacher knew. The second theme, “I sit out”: limited participation and a lack of modifications/accommodations, discussed the feelings participants had about their participation in PE with regard to a lack of modifications and/or accommodations. Generally, participants described PE experiences in which either undesirable or inappropriate modifications were implemented, or no modifications were provided at all. The third and final theme, “PE doesn’t feel great”: social interactions and perception of self, described participants’ experiences with social interactions in PE as well as the way that participants perceived their own capabilities. The narratives in the final theme explored how participants felt as though they either didn’t matter to their peers in PE or were unwanted during class activities, leading to a diminished self-image.

When discussing their experiences in integrated PE, the role that teachers played and the participants’ relationships with their teachers bled through each of the constructed themes in the first study. In each theme, the participants considered their teachers as being important gatekeepers, who held critical power in providing, or not providing, accommodations or modifications to allow meaningful access to activities within the integrated PE context. For example, two participants (Mark and Rowena) described being made to sit and watch their peers engage in activities because their teachers did not feel an activity was appropriate for them. Concurrently, these teachers were also seemingly unwilling to provide any accommodations or modifications to make activities more appropriate or accessible. While disappointing, it was unsurprising to learn about these experiences, as students with orthopedic impairments have often reported being physically segregated or feeling excluded and socially isolated in their PE classes (Goodwin & Watkinson, 2000; Tanure Alves et al., 2020).

It is clear from the findings of this study that changes should be made in the instructional practices used with students with orthopedic impairments in PE in an effort to improve the quality of their experiences. To start, PE professionals should examine their own biases regarding the education of students with disabilities in integrated PE classes to determine whether they ascribe to the commonly used deficit or medical models of thinking about disabilities (Gieben-Gamal & Matos, 2017). Given that purveyors of this model view individuals with disabilities as faulty and in need of fixing (Haegele & Hodge, 2016), teachers with this line of thinking likely contribute to the negative experiences that students with disabilities continue to have in their PE classes. As we know that teachers can directly influence the quality of experience for students with disabilities in PE (Holland & Haegele, 2021), teachers must first address their own biases and any resulting discriminatory behaviors before any positive change can take place for students with disabilities.

The purpose of the second study was to examine how students with orthopedic impairments experienced strategies identified in the literature to support 'inclusion'. An interpretative phenomenological analysis research approach was used, and six students with orthopedic impairments (age 10-14 years) served as participants. Data sources were written prompts, semi-structured, audiotaped interviews, and reflective interview notes. Based on thematic data analysis, four themes were constructed. The first theme, "It's kind of embarrassing": experiences with support, discussed participants' experiences with the 'inclusive' strategies of implementing active support in the form of peers or adult staff members during PE activities. The perceptions that participants had about each strategy varied, indicating that these strategies may or may not be appropriate based on the specific context of a student's PE experience. The second theme, "I don't want to be different": equipment, activity, and rule

modifications, followed a similar pattern, where participants described both positive and negative perspectives toward the implementation of modifications in their PE classes, again hinting that some 'inclusive' strategies may be more beneficial for some students than they are for others. The third theme, "I like to be a part of the conversation": autonomy and choice in PE, and the fourth theme, "I would rather be like the other students": discussing disability, elicited strong feelings from the group as a whole. Collectively, the participants' experiences supported the strategies of offering student choice with regard to activities and modifications and having teacher generated rather than student selected partners and teams. Conversely, the participants did not support the strategy of teachers discussing their disability with their peers without their knowledge or input. The experiences portrayed through each of these themes highlighted the differential effects of these explicated strategies, whereas each strategy contributed to feelings of inclusion, as well as marginalization among participants.

The results of this study aligned with previous findings in that participants experienced restricted participation and a lack of modifications (Haegele, Kirk et al., 2020), not feeling included due to limited peer engagement (Spencer-Cavaliere & Watkinson, 2010), and feelings of being 'on display' (Haegele, 2019). Generally, participants in this study described a lack of belonging, acceptance, and value, regardless of the implementation of 'inclusive' strategies. Instead, narratives in each theme portrayed experiences of fear of 'standing out' or being 'othered,' such as Maggie's description of feeling watched when unable to perform PE tasks in the same manner as her peers. The participants' narratives often returned to concern over how capable or desirable their peers perceived them to be rather than confidence in their place amongst the group, suggesting that feelings of belonging, acceptance, and value were scarce. The findings were consistent with the idea that PE is often an environment where students with

disabilities experience negative social interactions with both teachers and peers, making it a class where feelings of belonging and inclusion are less likely to occur (Holland & Haegele, 2021). According to Atkins, "the notion that inclusion is something that can be reduced to a set of strategies or inspection criteria is concerning" (2016, p. 8). This assertion is supported by the findings of this study, where the varied experiences that participants had with these 'inclusive' strategies suggested that however well intentioned, a one-size-fits all approach to integrated PE is not appropriate, and that blanket suggestions as to how to 'include' students cannot be made (Haegele, Kirk et al., 2020). Further, when 'inclusive' strategies are applied universally, there was the potential for unintended harm to the person being 'included' (Atkins, 2016). Indeed, this was seen with the participants in this study. Alice, for example, felt belittled and embarrassed by the modifications and activities that her adapted PE teacher presented her with. Therefore, while this teacher applied an 'inclusive' strategy to his work with her, the implementation of the strategy fell short. This teacher's failure to engage in reciprocal conversations with Alice about her own feelings of success and belonging throughout the instructional process contributed to her feelings of being excluded and reinforced the inequities that she was already facing (Haegele, 2019). Rather than silencing and objectifying students by assigning them to passive roles in their own educational experiences (Shah, 2007), and using cookie-cutter sets of 'inclusive' strategies, teachers must instead be reflexive to each individual student's needs and provide opportunities for students to play an active role in the education process (Davis & Watson, 2001). Thus, PE teachers should consider collaborating with their students with disabilities to co-construct 'inclusive' practices that are appropriate in each unique situation (Haegele, Kirk et al., 2020).

This study's unique contribution to the literature was the discussion of participant experiences with regard to specific 'inclusive' strategies implemented by the participants' PE

teachers. Among the strategies discussed with participants, it is important to note that one received universal, fervent opposition; the practice of teachers discussing their disability without them being present. For the participants, this 'inclusive' strategy led to 'othering" and marginalizing experiences, where they suddenly felt like they were being treated different by their peers without knowing the cause. Rather, the participants (e.g., Gordon, Alice) expressed a desire to represent their own realities should a teacher ever feel the need to share information about them with their classmates. Interestingly, the use of disability simulations, an 'inclusive' strategy often implemented at the post-secondary level, has received parallel feedback from individuals with disabilities in recent years (Leo & Goodwin, 2013; 2016). In both the K-12 and postsecondary versions of this strategy, an adult, presumably without a disability, shares disability information with a class full of students (also without disabilities) in an effort to reduce prejudice and improve attitudes toward individuals with disabilities (Leo & Goodwin, 2016). Instead, the lack of disability representation in these strategies can impose "ableistic norms" and perceptions of inability (Leo & Goodwin, 2016 p. 169) on the part of those with disabilities, resulting in increased negative perceptions on behalf of those without disabilities (Leo & Goodwin, 2013). The literature, in combination with the results from this study, provide support for the recommendation that disability should not be discussed without disability representation present.

A few limitations to these studies must be acknowledged. First, participants were from the United States, therefore findings may not be representative of students with orthopedic impairments in other parts of the world. This participant recruitment process decision was purposeful however, as the unique context of education in the United States warranted specific investigation. Further, generalizability (and particularly statistical-probabilistic generalizability),

is not an outcome consistent with the ontological or epistemological assumptions of IPA research (Smith et al., 2009). Thus, the findings of this paper were intended to represent the subjective experiences of a particular group of participants rather than to reflect upon the current state of integrated PE for all students with orthopedic impairments. These studies may, however, possess some degree of naturalistic generalizability, which may be reached if individuals with orthopedic impairments who consume the resulting manuscripts view the findings as recognizable to their own experiences (Smith, 2018). Lastly, the 'inclusive' strategies identified and inquired about in the interviews were derived from internet blog posts, practitioner-based textbooks, and articles in PE practitioner journals. It is possible that other strategies that the author was not aware of are in use in schools in the United States and warrant further examination.

The first study in this dissertation further developed the knowledge base on how students with orthopedic impairments experience integrated PE classes in the United States. The results of this study, when considered with the experiences of students with orthopedic impairments described in the literature, sheds some light on what PE is like for students with orthopedic impairments in the United States. In turn, the findings may help PE professionals develop more effective strategies for working with students with orthopedic impairments. The second study expanded the researchers' understandings of feelings of inclusion for students with orthopedic impairments in integrated PE settings. Being a novel study that was unique to the literature, the findings of this study may give researchers and PE professionals some insight as to how students with orthopedic impairments experience strategies intended to promote 'inclusion', and the degree to which these strategies help enhance the inclusiveness of these settings. The narratives portrayed in each study highlighted the importance of speaking with students with orthopedic

impairments about their experiences in PE in order to better understand their subjective truths, and future research should continue to investigate their unique perspectives.

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APPENDICES

APPENDIX A
WELCOME LETTER

We are conducting a study to examine the experiences of students with orthopedic impairments in physical education. We are looking for individuals who meet the following criteria: (a) are currently enrolled in a K-12 school in the United States, (b) are between the ages of 10 and 18 years old, (c) are currently enrolled in an integrated physical education class (students with and without disabilities educated in the same class), (d) self-identify as having an orthopedic impairment as defined by the Individuals with Disabilities Education Act (IDEA*), (e) do not have an intellectual disability/IQ lower than 70, and (f) are willing to complete two interviews that are approximately 60-90 minutes each. Participation is not limited to individuals identifying in any specific gender, race/ethnicity, or socioeconomic categories. Each participant will be assigned a pseudonym to be used for data presentation purposes to increase confidentiality.

Participation in this study is voluntary, and participants may withdraw at any time. All individual identifying information will be kept confidential and presented results will be anonymous. Additionally, data collected may be used in publications for academic purposes. All participants will be offered a $20 Amazon gift card in exchange for their time. If you (or your child) are interested in participating in this study or if you would like further information, please contact Katie Holland (kholl011@odu.edu) or Justin Haegele (jhaegele@odu.edu) at Old Dominion University. Thank you for your time and consideration.

Katie Holland, MSed, & Justin Haegele, PhD
Old Dominion University

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*Students who qualify for services under the category of orthopedic impairment may have any number of disabilities affecting their physical mobility, such as a congenital anomaly, impairment caused by disease (i.e. poliomyelitis), cerebral palsy, spina bifida, or spinal cord injury (IDEA, 2004).

APPENDIX B
PARENT/GUARDIAN CONSENT FORM

INFORMED CONSENT DOCUMENT
OLD DOMINION UNIVERSITY

PROJECT TITLE: Students with Orthopedic Impairments' Perspectives Toward Integrated Physical Education

INTRODUCTION
The purposes of this form are to give you information that may affect your decision whether to say YES or NO to your child's participation in this research, and to record the consent of those who say YES. This project, titled Youth with Orthopedic Impairments' Perspectives Toward Integrated Physical Education, will include no more than two, one-on-one phone or Zoom interviews and one written prompt, focused on their experiences in physical education.

RESEARCHERS
Katie Holland, MSed, Doctoral Candidate, Department of Human Movement Sciences, Old Dominion University
Justin A. Haegele, PhD, Associate Professor, Department of Human Movement Sciences, Old Dominion University

DESCRIPTION OF RESEARCH STUDY
The purpose of this study is to explore the perspectives of youth with orthopedic impairments toward their experiences in integrated, general physical education classes. A secondary purpose will be to examine how students with orthopedic impairments experience strategies identified in the literature as being 'inclusive'. While several studies have been conducted looking into how persons with disabilities experience physical education, most of these studies either ask adults to reflect back on their experiences or have been conducted outside of the United States. To extend this body of research, we will discuss physical education with youth.

If you decide to allow your child to participate, then your child will join a study involving no more than two, one-on-one phone or Zoom interviews and one written prompt. Eligible participants will schedule a time for the first interview with Ms. Holland at their convenience. Approximately 15 students with orthopedic impairments will participate in the first round of interviews. The interview can take place over the phone or via Zoom, at your/your child's preference. After the first round of interviews, a written prompt that will take approximately 20-30 minutes will be distributed to all participants via parent/guardian email addresses, asking that each student respond with as much or as little detail as they would like. Responses may be handwritten, typed, dictated to a scribe, completed using assistive technology, or audio recorded to be sent back to Ms. Holland. Following the completion of all written prompts, Ms. Holland will invite participants to schedule the second interview. Interviews should take approximately 60-90 minutes each. The estimated total participation time for this study is 3.5 hours.

EXCLUSIONARY CRITERIA
To the best of your knowledge, your child should (a) be currently enrolled in a K-12 school in the United States, (b) be between the ages of 10 and 18 years old, (c) be currently enrolled in an integrated physical education class (students with and without disabilities educated in the same class), (d) self-identify as having an orthopedic impairment as defined by the Individuals with Disabilities Education Act, and (e) not have an intellectual disability/IQ of less than 70. If your child does not meet all of these criteria, they will not be eligible to participate in this study.

RISKS AND BENEFITS
RISKS: If you decide to allow your child to participate in this study, then your child may face a risk of becoming upset while discussing challenging physical education experiences, as well as a risk of

confidential data release. If your child becomes upset discussing challenging experiences in physical education, the interviewer will discontinue questions in the area they are discussing and will move on to different topics. In addition, the participant will be asked if they would prefer to take a break, or to speak with you before continuing with the questions. The research team has taken reasonable steps to reduce risks related to confidential data by developing data handling protocols to reduce the likelihood of data release. Also, as with any research, there is some possibility that your child may be subject to risks that have not yet been identified.

BENEFITS: There are no direct benefits to participation. The benefit of this study may contribute to our knowledge of in the field of adapted physical education.

LANGUAGE

During the assent process, interviews, and completion of the written prompt, the terms 'disability' and 'orthopedic impairment' will be used. If you have any concerns about your child's engagement with these terms or would prefer that alternate language be used, please discuss your concerns with the researcher.

COSTS AND PAYMENTS

Each participant who completes the data collection for this study will be offered a $20.00(USD) amazon gift card. This gift card will be distributed to the parents electronically via email after the completion of the study. Parents will be asked to distribute the gift card to their child.

NEW INFORMATION

If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

CONFIDENTIALITY

The researchers will take reasonable steps to keep private information, such as personal data, confidential. The researcher will remove identifiers from all identifiable private information collected. All data reporting will maintain confidentiality of the participant by referring only to a participant pseudonym. All participant names (consent and assent forms) will be stored in Ms. Holland's password protected Qualtrics account and password protected desktop computer at Old Dominion University. All data, including interview data, prompt responses, and demographic information, will be stored separately indefinitely in a password-protected computer using the participant pseudonyms. The link between the data with pseudonyms and identifying information will be destroyed once data are analyzed. Identifiers might be removed, and the de-identified information used for future research without additional informed consent from the subject. The results of this study may be used in reports, presentations, and publications; but the researcher will not identify your child. Of course, records may be subpoenaed by court order or inspected by government bodies with oversight authority.

WITHDRAWAL PRIVILEGE

It is OK for you or your child to say NO. Even if you and your child say YES now, you or your child are free to say NO later. Your child will be able to walk away or withdraw from the study at any time. You or your child's decision to withdraw will not affect your relationship with Old Dominion University, or otherwise cause a loss of benefits to which you or your child might otherwise be entitled. The researchers reserve the right to withdraw your child's participation in this study, at any time, if they observe potential problems with their continued participation.

COMPENSATION FOR ILLNESS AND INJURY

If you say YES, that you consent to your child's participation, your consent in this document does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact Katie Holland at kholl011@odu.edu, Justin Haegele at

jhaegele@odu.edu, or Dr. Tancy Vandecar-Burdin, the current IRB chair, at (757) 683-3802 (tvandeca@odu.edu), or Office of Research (757) 683-3460 at Old Dominion University.

VOLUNTARY CONSENT

By selecting YES below and submitting this form, you are saying several things. You are saying that you have read this form or have had it read to you; and that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

And importantly, by selecting YES, you are telling the researcher YES, that you agree to allow your child to participate in this study.

YES NO Signature: _____ Date: _____

Katie Holland, MSed, kholl011@odu.edu
Justin Haegele, PhD, jhaegele@odu.edu

If at any time your child feels pressured to participate, or if you have any questions about your rights or this form, please contact Dr. Tancy Vandecar-Burdin, the current IRB chair, at (757) 683-3802 (tvandeca@odu.edu), or Office of Research (757) 683-3460 at Old Dominion University.

APPENDIX C
ASSENT FORM

Students with Orthopedic Impairments' Perspectives Toward Integrated Physical Education

My name is Katie Holland. I am a doctoral candidate at Old Dominion University.

I am asking you to take part in a research study because I am trying to learn more about your experiences in physical education. Approximately 15 students will participate in this study.

If you agree, you will be asked to participate in two interviews and one written prompt. The written prompt should take about 20-30 minutes and will ask you a question about your experiences in physical education. You can write as much or as little as you would like. Responses may be handwritten, typed, dictated to a scribe, completed using assistive technology, or audio recorded to be sent back to me.

The interviews will be audio recorded with your consent, and will focus on your experiences in physical education, particularly when participating in physical education with your peers without disabilities. I will ask questions about what it is like to have an orthopedic impairment in physical education. Each interview should take about 60-90 minutes.

You do not have to be in this study. No one will be mad at you if you decide not to do this study. Even if you start, you can stop later if you want. You can skip any questions you might not want to answer, and stop the interview completely, if you would like. You may also ask questions about the study.

If you decide to be in the study, I will not tell anyone else what you say or do in the study. Even if your parents or teachers ask, I will not tell them about what you say or do in the study.

All participants who complete this study will be offered a $20.00 Amazon Gift Card. The gift card will be sent electronically, via email, to your parents, for you to use.

This form will be confirmed using verbal assent.

APPENDIX D
DEMOGRAPHIC QUESTIONNAIRE

1. What is your child's name?
2. What is your child's age?
3. What race or ethnicity does your child identify as?
4. What gender does your child identify as?
5. Does your child identify as someone with a disability?
    a. If yes, please describe your child's disability:
    b. If no, your child is unfortunately ineligible to participate in our study. Thank you for your time!
6. Does your child have an intellectual disability or IQ lower than 70?
    a. If yes, your child is unfortunately ineligible to participate in our study. Thank you for your time!
    b. If no, please continue to question 7.
7. Is your child currently enrolled in a K-12 school?
    a. If yes, what grade is your child in?
    b. If no, your child is unfortunately ineligible to participate in our study. Thank you for your time!
8. Is your child currently enrolled in an integrated PE class? (Students with disabilities and students without disabilities in the same PE class)
9. If selected for participation, what would your child's preferred mode of communication be for an interview? (i.e. Telephone, FaceTime audio or video, Zoom conference):
10. If selected for participation, what days/times of the week is your child typically available for an interview?

APPENDIX E
PARTICIPANT DEMOGRAPHICS

Study 1	Study 2	Gender	Age	Grade	Race/Ethnicity	Disability
Allister	Gordon	Male	10	5th	White	Cerebral Palsy/Hemiplegia
Amelia	Maggie	Female	12	4th	Asian	Spina Bifida
Baked Bean	Ramen Noodle	Female	10	4th	Caucasian	Above the Knee Amputee & Type 1 Diabetes
Grandma	Agnes	Female	13	7th	Black	Bilateral Radioulnar Stenosis & ADHD
Mack	Phillip	Male	14	9th	White	Osteogenesis Imperfecta
Rowena	Alice	Female	11	6th	White	Col6 Muscular Dystrophy

Participants identified their demographic information in an open-ended format and the data above reflects their own words.

APPENDIX F
INTERVIEW GUIDE STUDY 1

1. Would you mind starting by telling me a little bit about yourself, and specifically about your disability?
2. What type of school do you attend?
3. Can you tell me a little bit about your PE class?
    a. What types of students are in the class?
    b. Who teaches the class?
    c. How often do you attend PE?
4. What are your feelings about PE? Do you like it/dislike it?
5. What is your favorite part about PE?
6. What is your least favorite part about PE?
7. Can you describe what your experiences in PE have been like?
    a. How meaningful has your participation in PE been?
8. Do you believe having a disability might influence how you experience PE?
    a. Can you describe how?
    b. How did this make you feel?
9. What kind of expectations exist for you in PE (e.g. achievement, participation, fitness, etc.)?
10. What kind of activities do you participate in PE? Are these the same activities as other kids?
    a. Does it seem like these activities were different for kids without disabilities?
11. How do you feel about being educated in PE with students who don't have a disability?
    a. Why?
12. Do you feel like you were a full participant in PE classes?
    a. Why or why not?

b. How does this make you feel?

13. Did you feel valued by your teacher during PE?

14. Did you feel valued by your peers during PE?

15. Can you describe whether you have a sense of belonging in your PE class?

    a. Is it your peers or your teacher that make you feel this way?

    b. Why or why not?

16. Can you describe any times that you might have felt excluded during PE?

    a. How did this make you feel?

17. Do you believe that instruction was provided that allowed for you to be successful and benefit from PE?

18. Do you believe that you were able to achieve your full potential in PE?

19. What helps you to feel most successful in PE?

20. What makes you feel least successful in PE?

21. Can you describe your experiences with your PE teachers?

    a. Do you believe you have had meaningful relationships with your PE teachers?

        i. How so?

    b. Do you believe that your disability has influenced your relationship with your PE teachers?

        i. How so?

    c. How did these relationships make you feel at the time?

22. Can you describe your experiences with your peers during physical education?

    a. Do you believe you have had meaningful relationships with your peers in physical education?

i. How so?

b. Do you believe your disability has influenced your relationship with your peers during physical education?

i. How so?

c. How did these relationships make you feel at the time?

23. Have you ever experienced any sort of bullying or teasing in PE?

a. Do you think this had to do with having a disability?

24. Have you experienced any pressure from your PE teachers to be better or worse than others at activities?

a. Do you think this had to do with having a disability?

25. How have your PE experiences influenced your understanding about your capabilities?

26. Do you think your PE experiences have influenced how active you are outside of school?

a. Do you enjoy being active outside of school?

27. Do you remember a particularly meaningful experience you have had while in PE (describe)?

a. How did that make you feel at the time?

28. Do you remember a particularly challenging experience you had while in PE(describe)?

a. How did that make you feel at the time?

29. Is there anything else you would like to describe about having a disability in physical education?

APPENDIX G
WRITTEN PROMPT

Instructions: Thank you again for participating in this study. Please write as much, or as little, as you would like to answer the following question about your experiences. Responses may be handwritten, typed, dictated to a scribe, completed using assistive technology, or audio recorded. Once complete, please give your response to your parent or guardian to return to Katie Holland (kholl011@odu.edu).

Question: Please describe the degree to which you feel included in your PE classes, as well as any strategies that your PE teachers use that help you to feel more, or less, included.

APPENDIX H
INTERVIEW GUIDE STUDY 2

1. Has anything about your PE experiences changed since our last interview?
    a. If so, would you please describe it for me?
2. How do you feel about attending a PE class that has both students with disabilities and students without disabilities in it?
3. What goals do you think PE teachers have for students in these integrated PE classes?
4. Have you ever been in a PE class with only students with disabilities?
    a. How did you feel about that class?
    b. What did you like/dislike about it?
5. What goals do you think PE teachers have for students in these self-contained PE classes?
6. One goal that PE teachers commonly identified in both types of PE classes is to teach students the knowledge and skills they will need to be active outside of school and for the rest of their lives after they graduate. Do you feel like your PE classes meet this goal?
    a. Why or why not?
    b. How does that make you feel?
7. We are going to talk a bit today about things that do or do not make you feel included in your PE class. What does the word inclusion mean to you?
8. There are a number of strategies that PE teachers might use in an effort to make students with disabilities feel more included in their PE classes. I'm going to ask you whether you have experienced some of them, and if they did or did not help you to feel more included. The first one is, have you ever had an instructional assistant, paraprofessional, or teacher's aide attend PE with you?
    a. Did this help you to feel more included in the PE class?

        i. Why or why not?

    b. How did you feel about having this person in PE with you?

    c. What was this person's role when they came to PE with you/what types of things did they do?

9. Have any other adults (besides your PE teacher) ever been invited to attend PE with you (i.e. classroom teacher, physical therapist, occupational therapist, parent)?

    a. Did this help you to feel more included in PE class?

        i. Why or why not?

    b. Why do you think this person was invited to attend your PE class?

    c. What did this person do while they were there?

10. Have you ever been assigned a peer buddy in your PE class?

    a. Did this help you to feel more included in the PE class?

        i. Why or why not?

    b. How did you feel about having this person assigned to you?

    c. What was this person's role/what types of things did they do?

11. When you are going to your PE class, do you arrive by yourself, with your class, or with a school staff member?

    a. Does this help you to feel more included in your PE class?

        i. Why or why not?

12. When instructions are being given in PE, where do you sit or stand?

    a. Where do the rest of your classmates sit or stand?

    b. Does this help you to feel more included in your PE class?

        i. Why or why not?

13. Describe the warm- up routine in your PE class for me.
    a. Are there a certain number of exercises or laps you must complete or do you participate at your own pace?
    b. Does this help you to feel more included in your PE class?
        i. Why or why not?
14. Have your PE teachers made any equipment modifications or changes for you in PE class?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
    b. What types of equipment changes have your teachers made for you?
    c. How did you feel about these changes being made?
15. Have your PE teachers made any modifications or changes to rules or activities for you in PE class?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
    b. What types of rule or activity changes have your teachers made for you?
    c. How did you feel about these changes being made?
16. Have you ever been given choices in the activities you participate in or the modifications you receive in your PE class?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
17. Have your PE teachers ever asked you what types of modifications or changes you would like to have in your PE class?
    a. Did this help you to feel more included in the PE class?

i. Why or why not?

b. What types of modifications or changes have you recommended, or do you think might improve your feelings of inclusion in your PE class?

18. Have your PE teachers ever given you additional or different types of instruction than they gave your peers (i.e. individual verbal directions, additional demonstrations, etc…)?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
19. Have your PE teachers ever talked about your disability with you?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
    b. Have your PE teachers ever talked about your IEP with you?
        i. Do you know if you have any goals for PE written on your IEP?
20. Have your PE teachers ever talked about your disability with your classmates (that you know of)?
    a. Did this help you to feel more included in the PE class?
        i. Why or why not?
21. Have you ever been asked to demonstrate skills or activities in your PE class?
    a. If yes, were these the same skills and activities that your peers without disabilities were participating in?
    b. Did this help you to feel more included in the PE class?
        i. Why or why not?
22. When participating in partner activities in your PE classes, is your partner more often a classmate or an adult?

a. Do you usually select this partner or are they assigned to you?
b. Does this help you to feel more included in the PE class?
    i. Why or why not?

23. When participating in team or group activities in your PE classes, how are the teams chosen?
    a. Does this help you to feel more included in the PE class?
        i. Why or why not?

24. When your class has fitness testing, do you complete it with them, at another time, or not at all?
    a. Do you receive any modifications or changes to the fitness tests?
    b. Does this help you to feel more included in the PE class?
        i. Why or why not?

25. Have your PE teachers ever provided you with feedback on the skills or activities that you are participating in during your PE class?
    a. If so, has it been positive feedback or feedback on things you may need to improve (or both)?
    b. Do you feel that you have received the same amount of feedback in your PE class as students without disabilities?
    c. Did this help you to feel more included in the PE class?
        i. Why or why not?

26. At the end of your PE class, do you leave with your classmates, by yourself, or with an adult?
    a. Does this help you to feel more included in your PE class?
        i. Why or why not?

27. Is there anything else about your PE class that has made you feel more or less included that you want to tell me about?
28. Is there anything you can think of that might help you to feel more included in your PE class that we did not talk about?

CURRICULUM VITAE

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Human Movement Sciences
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EDUCATION

2018-Present **PhD**, Old Dominion University
Human Movement Sciences
Health and Sport Pedagogy
Dissertation Topic: Students with Orthopedic Impairments' Perspectives Toward Integrated Physical Education

2013 **MS**, University of Wisconsin-La Crosse
Exercise and Sport Science- Physical Education Teaching
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Thesis Topic: Interstate and Interdistrict Variation of Eligibility Criteria for Services in Adapted Physical Education

2012 **BS**, Canisius College
Health and Physical Education

SELECTED PUBLICATIONS

Holland, K., & Haegele. J. A. (2021). Perspectives of Students with Disabilities Toward Physical Education: A Review Update 2014–2019. *Kinesiology Review. 10*(1), 78-87.

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