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Physical Education Teachers' Perceptions of Challenges on Including Students with Disabilities into Their Classrooms, and Their Ideas on How to Overcome Them: A Qualitative Study

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Abstract

This study investigates physical education (PE) teachers' perceptions of including students with physical disabilities in mainstream PE settings (i.e., general education environments serving both typically developing students and those with disabilities) in Saudi Arabia. A qualitative research design was adopted to examine the current perspectives of PE teachers, addressing context-specific interpretations of inclusion and the conditions that influence its implementation in mainstream schools. Data were collected using individual semi-structured interviews conducted with PE teachers ($n = 8$) in Riyadh, Saudi Arabia. The interview protocol consisted of 18 open-ended questions distributed across five domains: (1) teachers' perceptions and professional preparedness, (2) institutional policies, facilities, and curriculum adaptations, (3) experiences with students with PD and peer interactions, (4) parental and socio-cultural influences on inclusive PE, and (5) teachers' recommendations for strengthening inclusive PE. Thematic analysis of the individual semi-structured interviews suggests that Saudi Arabian PE teachers generally support inclusive education and acknowledge its benefits for students with disabilities, particularly in fostering social participation and equitable access to learning. Importantly, these outcomes do not appear to be substantially influenced by teacher sex; rather, they seem to be systemic features of the broader Saudi Arabian educational environment. The present study contributes to the growing literature on inclusive physical education by examining the current perspective of physical educators and identifying how professional training, awareness of inclusive policies, and school-level conditions influence their capacity to implement inclusive PE practices.



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1. Introduction

Inclusive education is a central focus in contemporary educational discourse, driven by the need to ensure equitable access to high-quality learning experiences for all students and to address diverse learning needs. Inclusive education refers to settings where learners with and without physical disabilities (PD) learn together in mainstream classrooms, aiming to promote both academic growth and social inclusion within the broader community

(Carrington, 2017). Research indicates that students with PD frequently experience significant academic and social progress when included alongside their peers (Winans-Solis, 2014). The successful integration of students with PD into regular classroom environments has been reported across several geographical and sociocultural contexts (Bertills & Björk, 2024). On the Arabian Peninsula, the Ministry of Education in Saudi Arabia supports the inclusion of students with PD into regular classroom environments by setting standards for delivering quality education to students with PD and integrating them into mainstream schools (Bagadood & Sulaimani, 2022).

Implementing full inclusion policies in Saudi Arabian schools has led to significant transformations, especially when integrating students with PD into general PE classes. PE serves as both an academic discipline and a social environment where students gain well-being, peer connections, and a sense of belonging in the school community (Bertills & Björk, 2024). However, the shift to a broader, more inclusive practice has created challenges for general PE teachers. Unlike traditional classrooms, PE requires managing dynamic activities and equipment and upholding safety (Marcos-Rivero et al., 2024).

Educators' perceptions shape their teaching and use of support (Hsieh et al., 2012). Teachers more aware of, and responsible for teaching students with PD, are more likely to use inclusive practices (Monsen et al., 2014). Research reports that teachers' perceptions impact how inclusive policies are applied in classrooms (Bertills & Björk, 2024). While most teachers support inclusive education in theory, many lack the skills to teach students with PD (McGregor & Campbell, 2001). Teachers often have positive views about inclusion but are unsure how to practically implement inclusion (Mihajlovic, 2025; Priyanka & Samia, 2018). Limited teacher expertise can hinder students' educational development, whereas knowledge about PD improves teaching, attitudes, and policy adoption (Bertills & Björk, 2024; Ruppert et al., 2016). Specialized training helps teachers adopt inclusive practices and better understand students with PD (Alquraini & Rao, 2018; Marcos-Rivero et al., 2024). In Saudi Arabia, a further complicating factor for implementing inclusive practices could be gender, which may affect teachers' perspectives on inclusive PE because male teachers teach boys and female teachers teach girls (Aldabas, 2015).

Most research on teachers' views of inclusive education comes from Anglo-Saxon, Western Christian countries, especially the United States (US) and the United Kingdom (UK) (Christle & Yell, 2010; Etscheidt & Curran, 2010; Veck, 2014). Studies in non-Western contexts, particularly the Middle East, are scarce. Saudi Arabia has been studied to some extent (Abed & Shackelford, 2020; Alhumaid, 2022; Alquraini & Rao, 2020), focusing on policy and practice in educational inclusion. These studies reveal a gap between policy goals and real classroom application, especially in PE (Alhumaid, 2022; Bagadood & Sulaimani, 2022). Understanding Saudi PE teachers' perceptions is vital, as these shape inclusion practices, challenges, and support. Without solid insight into these views, policies and training may be fragmented and fail to create lasting, effective, inclusive PE practices.

Students with PD were specifically selected as the focus of this investigation because PE is an inherently motor control/skill acquisition and physical development-focused education topic. Consequently, students with PD face unique, immediate biomechanical and infrastructural barriers, such as the need for specialized adaptive equipment, accessible facilities, and distinct physical safety modifications. These environmental and physical demands distinctively challenge teachers' pedagogical management in ways that set the inclusion of students with PD apart from those with primarily cognitive or sensory needs.

This study investigates the perceptions of PE teachers regarding the inclusion of students with PD in mainstream PE settings in Saudi Arabia. The research aims to analyze Saudi Arabian teachers' interpretations of inclusive PE, the contextual factors that influence inclusive practice, and their recommendations to ensure diverse participation.

These objectives enable an evaluation of the alignment between inclusive education policy and the actual implementation of inclusion by Saudi Arabian PE teachers in mainstream environments. The study sought to address three specific research questions: (Q1) How do Saudi Arabian teachers perceive the inclusion of students with PD in PE classes? (Q2) What do teachers perceive as the challenges of including students with PD in PE classes? (Q3) What recommendations do teachers have on how to overcome these challenges?

2. Literature Review

2.1. Teachers' Perspectives Toward Inclusion of Students with PD in Physical Education

Inclusion means meeting the needs of students with PD in mainstream classrooms, including general PE (Van Steen & Wilson, 2020). Teachers need to create and run programs that support these students in general education (Longakit et al., 2025). The beliefs, knowledge, and perceptions of PE teachers regarding inclusion play a significant role in shaping their instructional decisions and interactions with students with PD. Additionally, teachers provide essential insights for educational decision-makers. Therefore, promoting inclusive practices in general PE requires a comprehensive understanding of teachers' perceptions, professional competencies, and classroom implementation of inclusion (Burhaein et al., 2025).

Reported research has highlighted several factors that shape teachers' attitudes toward inclusive PE. Both student and teacher characteristics play a role (Qi et al., 2017). Teachers are usually more willing to teach students with mild PD than those with more severe disabilities or limited motor skills (Mihajlovic, 2025). Attitudes also vary by disability type, with teachers viewing students with learning PD more positively than those with emotional or behavioral conditions (Haegele et al., 2021). In PE classes, teachers are mainly responsible for including students with PD, but during free play, peers decide who participates (Spencer-Cavaliere & Watkinson, 2010). Students with PD often find it hard to join in less structured activities like recess because other students control participation (Vetoniemi & Kärnä, 2019). In class, students with PD have felt left out when teachers tried to help them without involving them in the process. As a result, PE teachers are encouraged to collaborate with students in a co-design process to develop inclusive practices tailored to each specific teaching context (Holland et al., 2023). Regarding teacher characteristics, more positive attitudes have been associated with female teachers (Hodge & Elliott, 2013), those having more experience teaching students with PD (Marcos-Rivero et al., 2024; Sari et al., 2025), those having stronger training in adapted or inclusive education (Kombe et al., 2024; Marcos-Rivero et al., 2024), or those feeling more confident in their teaching skills (Granell et al., 2021).

Qualitative research has been employed to investigate the perceptions and beliefs of PE teachers regarding inclusive education. For example, Utami (2025) examined the perspectives of 16 experienced PE teachers in Indonesia, identifying that while participants generally supported inclusion as an educational principle, recent regulatory changes led to confusion due to a lack of training on these updates. Reported challenges included limited instructional time, difficulties in providing individualized support, and inadequate professional preparation, particularly when teaching students with more severe PD. In a related study, Saiz-González et al. (2025) explored the beliefs of middle and high school PE teachers and identified a spectrum of viewpoints, ranging from favourable attitudes shaped by positive teaching experiences to uncertainty stemming from doubts about the benefits of inclusion and personal instructional competence, as well as resistance to including students with severe PD due to excessive workloads and insufficient support personnel. Extending this perspective, Meregi et al. (2025) explored PE teachers' beliefs across South Africa, noting generally positive orientations toward inclusion. Nevertheless,

teachers consistently reported concerns regarding their self-efficacy, especially in managing challenging behaviours and addressing diverse learning needs, alongside systemic barriers such as limited professional training, insufficient parental involvement, and a lack of administrative support. Similar findings have been documented in studies from various contexts, underscoring the need to present a more comprehensive view of teachers' concerns to inform the development of policies and inclusive PE strategies that better address their needs and those of their students (Braksiek et al., 2022; Hao & Razman, 2023).

In the context of Saudi Arabia, Alhumaid (2022) examined the perspectives of PE teachers on inclusive education, reporting broad support for inclusion alongside concerns about the attitudes of colleagues and parents. Participants reported moderately positive attitudes and highlighted the necessity for further professional development and high-quality practical training to enhance their capacity to teach in inclusive PE settings. Additional research has identified teacher perspectives as a primary barrier to achieving inclusive education in schools (Alnahdi, 2020; Alquraini, 2011; Reusen et al., 2000). While most mainstream teachers are hesitant to integrate students with severe learning PD, they generally support the inclusion of students with mild and moderate PD (Al-Ahmadi, 2009). The primary reason for resistance to including students with severe PD is the perception that these students require significantly more effort to teach. Teachers with a family member who has a disability tend to exhibit supportive attitudes toward inclusion, regardless of their professional background or teaching experience (Reusen et al., 2000). Previous studies (Al-Ahmadi, 2009; Alquraini, 2011; Reusen et al., 2000) supported understanding teachers' viewpoints on the issue of inclusion by considering the extent of the student's disability. Nevertheless, only a few studies have re-examined Saudi Arabian PE teachers' experiences and interactions with students with PD, aiming to improve teacher attitudes and promote effective inclusion (Alhumaid, 2022). The current study seeks to address this gap by examining Saudi Arabian PE teachers' perceptions of inclusion and identifying factors that may influence their capacity to implement inclusive PE practices.

2.2. Saudi Arabia Context

Mainstream schools in Saudi Arabia are increasingly required to educate students with PD within general classrooms, including their participation in general PE. As inclusive education policies are interpreted and enacted at the school level, PE teachers serve a pivotal role in implementing policy expectations by promoting the physical and character development of students with PD (Alhumaid, 2022). The PE curriculum often neglects essential legal considerations, such as students' rights and obligations, teachers' responsibilities, and safety protections, and therefore requires further development (Qomarrullah et al., 2024). Strengthening this legal framework should be accompanied by enhanced training and professional development to ensure that services for students with PD are effective. The principles of inclusive PE prioritize individualized physical activities in regular classrooms, with a shift to more segregated environments considered only if a student's needs cannot be met despite additional support.

In the Saudi Arabian school curriculum, PE is a fundamental component, intended to promote students' physical development, health, and engagement through structured physical activity (Alhumaid, 2022). PE is generally delivered by specialist physical education teachers through scheduled lessons across primary and secondary education, although the duration and organization may differ by school stage, sector, and local implementation. Inclusion in physical education involves providing services to students with special needs within a regular education setting (Alhumaid et al., 2022), with the objective of fostering an environment in which every student is valued and supported in their academic and social development. Inclusive education programs seek to provide equal learning opportunities

for students with PD, enabling them to learn alongside their peers without discrimination or exclusion (Han et al., 2024). These initiatives strive to create a school environment that embraces diversity, acknowledges individual needs, and cultivates a sense of belonging for all children, regardless of ability (Sridevi, 2023). The implementation of inclusive PE is complex and requires multiple components, with a particular emphasis on the role of instructors. PE teachers are frequently required to make classroom-level adaptations in response to students' needs, interests, and functional abilities, as well as to practical constraints such as facilities, equipment, and class size (Alhumaid, 2022). The relationship between centrally defined expectations and locally enacted practices is especially important for inclusive PE, as meaningful participation depends on the feasibility and quality of instructional modifications within actual school settings.

2.3. Conceptual Framework

This study is conceptually based on Vygotsky's social constructivist perspective, which emphasizes the central role of social interaction and cultural context in learning and development (Bodrova & Leong, 2006). Social constructivism highlights learning as a process involving interrelated mechanisms, including the Zone of Proximal Development (ZPD), intersubjectivity, and enculturation (Fosnot & Perry, 2005). The ZPD refers to the gap between what learners can accomplish independently and what they can achieve with guidance or collaboration from more knowledgeable individuals (Vygotsky, 1978), underscoring the potential for development under supportive instruction (Puntambekar & Hübscher, 2005). Intersubjectivity denotes the shared understanding developed through reciprocal interaction (Jacobs & Eccles, 2000), while enculturation involves acquiring culturally embedded norms and practices through social participation (Rovegno & Dolly, 2006).

These mechanisms operate collectively through social engagement. Interactions such as collaborative learning, guided participation, and apprenticeship initiate developmental processes that foster individual cognitive growth (Schunk, 2012). Additionally, learning is shaped by broader cultural systems. Cognitive development is influenced by socially mediated tools, including language, cultural artifacts, and institutional structures such as schools and community organizations (Schunk, 2012). Consequently, knowledge construction is culturally situated, arising from shared meanings developed within specific social environments (Rovegno & Dolly, 2006). Within this theoretical framework, knowledge is viewed as the result of participation in socially organized communities rather than as an individual accomplishment. Consistent with this perspective, the present study conceptualizes teachers' perceptions as socially constructed through ongoing interaction within cultural and institutional contexts.

Adopting social constructivism as an interpretive lens, the study examines how teachers' perceptions of inclusion are formed. The perspectives of Saudi Arabian PE teachers are understood as emerging from their experiences teaching students with PD in mainstream settings. Teachers' interpretations are shaped through ongoing social engagement, including professional collaboration, communication, and shared practice, which collectively influence how inclusion is perceived and enacted. Furthermore, broader cultural and institutional contexts surrounding inclusive education play a crucial role in shaping these perceptions, as teachers continually negotiate meaning through interactions with colleagues, students, families, and the broader community. Vygotsky's framework organizes these perceptions across three interconnected dimensions: (1) classroom experiences with students with PD; (2) communicative exchanges about inclusive teaching; and (3) socially constructed norms and values related to disability and inclusion within teachers' cultural environments.

3. Methods

Although quantitative research offers insight into general trends in inclusive education, qualitative inquiry enables a more nuanced exploration of teachers’ experiences within authentic school environments (Creswell, 2007). Accordingly, the present study adopts a qualitative approach to examine the current perspectives of physical educators, addressing context-specific interpretations of inclusion and the conditions that influence its implementation in mainstream schools. Semi-structured interviews enabled participants to reflect on their professional experiences and the factors influencing inclusive practice. The findings are intended to provide a more representative view of PE teachers’ concerns and contribute to the development of policies and strategies that better address their needs and those of their students.

3.1. Participants

A convenience sampling strategy was used to recruit participants through the Riyadh Department of Education that met three inclusion criteria (Qi et al., 2017). The inclusion criteria were completion of formal training in physical education programs or possession of a recognized PE teaching certification, prior experience teaching students with PD in mainstream PE classes, and residence in Riyadh. An invitation email describing the study’s purpose and procedures was sent to all eligible teachers ($n = 102$), with twenty-six teachers responding with an expression of interest, to whom the stated inclusion criteria were applied. Teachers were excluded if they did not meet the requirement of having current or recent experience teaching students with physical disabilities (PD) in mainstream PE settings ($n = X?$). Second, several teachers were unable to participate due to scheduling conflicts or unresponsiveness to follow-up communications ($n = X?$). Resulting in data collection ceasing with $n = 8$ because data saturation was achieved, as no new substantive themes or insights were emerging from the interviews, providing a rich and sufficient dataset to address the research aims.

Ethical approval was obtained from the Curtin University Human Research Ethics Office (HRE 2024-0141). Informed consent was obtained from all participants before data collection. Identification codes were assigned to ensure participant confidentiality. Demographic characteristics of the participants are summarized in Table 1.

Table 1. Demographic characteristics of participants.

Name	Gender	Years of Teaching PE	Grade of Teaching
T1	Female	1–3	Primary
T2	Female	3–5	Secondary
T3	Female	1–3	Primary
T4	Male	11–15	Primary
T5	Male	8–10	Secondary
T6	Male	6–8	Secondary
T7	Male	10–12	Primary
T8	Male	5–7	Secondary

3.2. Data Collection

Individual semi-structured interviews were conducted with Saudi Arabian physical education teachers to obtain detailed accounts of their experiences and perceptions of inclusive physical education, allowing flexibility to explore emerging topics (Patton, 2002). The interview guide was developed iteratively, informed by the study’s conceptual framework and a comprehensive literature review on inclusive physical education and teachers’ beliefs and practices (Alhumaid, 2022; Alquraini, 2011; Utami, 2025). Initial questions were aligned with key theoretical constructs and refined to address recurrent themes from

previous research, including teacher preparedness, institutional support, peer relationships, parental involvement, and socio-cultural influences.

The final interview protocol included 18 open-ended questions across five domains: (1) perceptions and preparedness, (2) institutional factors and curriculum, (3) student experiences and peer interactions, (4) socio-cultural and parental influences, and (5) recommendations for improvement (Table 2). All interviews were conducted individually via Zoom in Arabic, averaging 35 min each. Each interview session was audio-recorded after receiving consent. During the interviews, field notes were taken to document emerging themes and direct quotes. All audio recordings were transcribed verbatim and cross-referenced with the field notes. To establish credibility, transcripts were shared with participants for verification, to confirm accuracy and resolve any audio ambiguities.

Table 2. Semi-structured interview domains and sample questions.

Domain	Focus	Example Question
Teacher preparation	Perceived competence and training	What challenges do PE teachers face in including students with disabilities?
Institutional support	Policies, facilities, and curriculum	Are school facilities adequately equipped to support inclusion?
Student participation	Peer interaction and confidence	What is their peers’ opinion of them? Are they accepted by them? Is there interaction between them? What could you do to improve that?
Family and culture	Parental and socio-cultural influences	Do parents encourage participation in PE? Why or why not?
Recommendation	Improvement strategies	What recommendations would you propose to enhance inclusive PE?

3.3. Data Analysis

Data were analyzed using reflexive thematic analysis, involving repeated familiarization, inductive coding of meaningful units, and iterative refinement through constant comparison (Braun & Clarke, 2006). To manage and organize the dataset, NVivo software (version 15; Lumivero, 2024) was utilized. The primary researcher generated initial codes by reading transcripts line-by-line within the software, highlighting meaningful text segments, and assigning descriptive labels. Initial codes were then organized into provisional themes, which were reviewed for coherence and defined to reflect teachers’ attitudes, perceived preparedness, and professional competence.

While coding remained primarily inductive, a social constructivist framework guided the interpretation of inclusion as a construct shaped by classroom practice, collaboration, and socio-cultural environments. To ensure analytic rigor and align with the reflexive nature of this approach, coding was conducted by a single researcher. However, interpretation was strengthened through an audit trail, peer debriefing with academic supervisors, and participant checking, while reflexivity was maintained through ongoing consideration of researcher positionality.

3.4. Trustworthiness

Trustworthiness was established through member checking, peer debriefing, an audit trail, and the use of rich, thick description. Credibility was ensured by returning transcripts to participants for verification. To further ensure transparency, an audit trail was maintained via digital analytical memos and coding logs within NVivo, which tracked the evolution of the coding framework. Additionally, peer debriefing was conducted systematically; the senior author (FM) and the author (AS) acted as ‘critical friends’ who reviewed

the codebook and challenged analytical assumptions, providing an external audit of the research process to maintain analytical rigor (Creswell, 2007). To enhance transferability, the study provided detailed contextualization of participants and settings, supported by verbatim quotations and field notes (Merriam, 2009). These evidence-based findings ensure depth, transparency, and a comprehensive understanding of the participants' experiences within their natural context.

4. Results

The following themes emerged based on the content analysis of interview data concerning Saudi Arabian PE teachers' perceptions of including students with PD in mainstream PE context: (1) favorable attitudes toward inclusion accompanied by practical concerns, (2) aspiration toward professional competence amid insufficient preparation, (3) limited coherence between inclusive policy and school-level implementation, and (4) teachers' recommendations for strengthening inclusive PE. These themes were supported by subthemes that are illustrated using the words of the teachers.

4.1. Theme 1: Favorable Attitudes Toward Inclusion Accompanied by Practical Concerns

All teachers expressed positive attitudes toward inclusion as an educational principle, viewing general PE classes as supportive environments for students with PD and endorsing equal participation and social development. However, their support was consistently moderated by concerns regarding environmental, instructional, and contextual barriers. Theme 1 comprised two subthemes: (a) inclusion as an educational right and professional responsibility, and (b) structural and instructional barriers to implementation.

4.1.1. Subtheme 1.1: Inclusion as an Educational Right and Professional Responsibility

Participants emphasized the social benefits of inclusive PE for both students with and without PD. Teachers underscored the significance of inclusive educational policies in enabling students with PD to engage with society and develop social skills. For students without PD, teachers identified interactions with peers with PD, such as aiding during PE classes, as integral to their overall school experience. T7 stated, "all students should have the opportunity to participate in physical education," while T2 remarked, "we are responsible for including all students." Similarly, T4 emphasized that inclusion reflects core educational values, noting, "students with PD deserve equal opportunities like any other student, and the process of inclusion also has benefits for students without PD in terms of learning to get along with people who are different from them."

4.1.2. Subtheme 1.2: Structural and Instructional Barriers to Implementation

After expressing positive acknowledgement, most teachers expressed concerns about barriers to including students with PD in general PE context. These barriers encompassed challenges in implementing inclusive PE, negative peer attitudes, bullying, and safety issues. The primary barrier identified was the difficulty teachers faced in implementing inclusive PE programmes. Some teachers highlighted limitations in adapting the PE curriculum and environmental constraints. Infrastructural inadequacies were frequently cited. For example, T5 stated that "most schools are outdated and not adapted," referencing the absence of elevators and adapted facilities. Similarly, T4 noted that "school buildings are not adapted for students with PD." Teachers also reported shortages of adaptive sports equipment and overcrowded classes, which restricted opportunities for individualized attention. T6 stated that "classes are overcrowded and there is a shortage of equipment," which made adaptation challenging.

Curricular rigidity further exacerbated these issues. Teachers described the PE curriculum as insufficiently responsive to diverse student needs. T4 observed that "the curriculum

is traditional and does not consider individual differences,” while T6 indicated that adaptation “depends largely on the teacher’s experience.” T3 added that modifications “rely mainly on teachers’ abilities and are not supported by adequate resources.”

Several teachers identified negative attitudes and bullying by students without PD as significant barriers to inclusion in general PE. T1 stated, “Those students without PD generally do not want to learn together with their peers with PD. You see some students with PD constantly standing aside and never getting a group partner.” T7 pointed out that “Nowadays, students are self-centred and tend to exclude their peers with PD. When their peers with PD cannot fulfil some skills, they often laugh at them or bully them.” The competitive nature of certain PE activities was also cited as a contributing factor, as children often prioritize winning and may avoid grouping with students with PD. T2 explained that ordinary students often exclude students with PD, perceiving them as unable to follow instructions or as moving more slowly. T6 noted that “some peers accept them, but others do not fully cooperate.”

Safety concerns represented another major barrier. Although all teachers acknowledged the importance of environmental safety, they expressed concerns about the risk of injury and their limited capacity to supervise all students in large classes. T4 explained that students with PD often hesitate to participate due to “fear of injury and failure,” and T7 emphasized that managing safety becomes increasingly challenging in overcrowded environments. Teachers also discussed the risks associated with unexpected behaviours of students with PD, which could increase the likelihood of injury to other students. T5 stated, “Some behaviours of students with PD were dangerous and could hurt other students when activities are performed incorrectly.”

4.2. Theme 2: Teachers’ Professional Preparedness for Inclusive PE

This theme highlights the crucial role of teachers in promoting inclusivity within PE. Participants outlined various strategies for integrating students with PD into general PE classes. All teachers indicated that they accepted every student and provided instruction through physical activities, with particular attention to those who are frequently marginalized, such as students with PD. As T5 stated, “As a teacher, I have a responsibility to educate all the students, whether they are students with good sports abilities or students with PD. This is my duty.” Despite this commitment, most teachers reported substantial challenges in effectively teaching students with PD and expressed concerns regarding their professional competence in this area. Two subthemes emerged: (1) limited pre-service training and (2) the need for structured professional development.

4.2.1. Subtheme 2.1: Limited Pre-Service Training

All participating teachers indicated that their pre-service education insufficiently prepared them to teach students with PD in mainstream PE settings. Participants consistently highlighted the absence of specialized coursework in inclusive pedagogy, disability awareness, and adaptive instructional strategies. T4 stated that “the university did not adequately prepare me to include students with physical disabilities,” while T7 similarly noted that “there are no curricula or courses that provide these skills.” T5 further emphasized the lack of formal specialization, explaining that “university education did not provide sufficient training related to students with PD, and there was no specialization in this field.” Several teachers described their university programs as primarily focused on traditional PE content, with minimal attention to diverse learner needs and inclusive practices. T6 explained that “we studied general physical education, but nothing specific about how to teach students with PD,” and T3 reported that inclusion was addressed only superficially, without practical application: “we received some theoretical information, but there was no

training on how to actually work with these students in real classes.” These explanations suggest that inclusion was viewed as a secondary consideration rather than a fundamental component of teacher preparation to provide a lived experiential learning experience for the pre-service teacher.

Participants also noted that limited exposure to students with PD during pre-service practicum experiences further restricted their readiness. T2 explained that “during training, we did not practice with students with PD, so when I faced this situation at school, I felt unprepared.” Similarly, T1 noted that “there was no opportunity to observe inclusive PE in action,” which reinforced feelings of uncertainty upon entering professional practice. As a result of these gaps, teachers reported entering the workforce without sufficient pedagogical tools to address diverse functional needs, manage safety concerns, or adapt activities appropriately. T4 reflected that “even when we want to help, we don’t always know the correct methods,” while T7 acknowledged that “we depend on ourselves because we were not properly trained.” This lack of structured preparation diminished professional confidence and shifted the responsibility for acquiring inclusive practices onto individual teachers rather than within formal educational systems.

4.2.2. Subtheme 2.2: Need for Structured Professional Development

Teachers reported substantial gaps in pre-service preparation and consistently articulated the need for structured, context-specific professional development to improve their capacity for implementing inclusive physical education. Participants attributed their challenges not to reluctance toward inclusion, but to limited access to practical strategies and applied knowledge. T6 stated, “We need structured training on how to deal with students with PD,” while T5 underscored the importance of “continuous workshops and professional development.” T7 also emphasized that “professional support and training courses are necessary,” particularly those focused on real classroom situations rather than general theoretical content. Teachers identified specific instructional challenges that intensified their perceived need for training. Arranging group activities to ensure equitable participation was described as particularly complex. Several participants indicated that adapting competitive games, organizing peer support, and maintaining class flow while addressing individual needs required specialized pedagogical approaches not addressed in their formal education. T3 noted, “Managing group activities is difficult because students have different abilities, and I am not always sure how to modify tasks appropriately.” Similarly, T4 explained, “Sometimes I want to adjust activities, but I am not confident that I am doing it in the best way.”

Behavioral management and safety supervision were also identified as areas requiring further professional development. Teachers expressed uncertainty about managing unpredictable behavior and balancing inclusion with overall class safety. T7 reflected, “When students have different physical abilities, supervision becomes more complicated, especially in active games,” while T2 stated, “We need more guidance on how to manage situations where safety is a concern.” These perspectives suggest that inclusive physical education necessitates not only technical adaptations, but also advanced classroom management strategies tailored to diverse functional needs. Participants also noted that current professional training opportunities are often limited in scope and lack relevance to physical education contexts. Several teachers noted that general disability workshops provide broad information about disability characteristics but do not offer practical guidance for physical education instruction. T5 explained, “Most workshops provide general knowledge about PD, but they do not explain how to teach physical education effectively in inclusive classes.” T6 similarly observed, “training is often theoretical and does not focus on real PE situations.” Where limited specialized coursework had been available, teachers

acknowledged its value but described it as insufficient for the complexity of real classroom environments. T4 stated that exposure to inclusion topics “made me more aware of the issue,” yet admitted, “when facing different types of PD in the same class, I do not feel fully confident.” These reflections indicate that teachers perceive a gap between foundational awareness and applied competence.

4.3. Theme 3: Limited Coherence Between Inclusive Policy and School-Level Implementation

The third theme reflects teachers’ perceptions of relationship between inclusive education policies and their enactment in school contexts. Although participants acknowledged the presence of governmental regulations promoting inclusion, they consistently described weak operationalization, insufficient institutional support, limited engagement with families and broader socio-cultural factors. This theme comprised three subthemes: (1) policy endorsement with weak institutional enactment, (2) absence of monitoring and structured guidance, and (3) parental and socio-cultural influences on participation.

4.3.1. Subtheme 3.1: Policy Endorsement with Weak Institutional Enactment

Participants identified inclusion as a national educational priority but reported considerable variability in its implementation across schools. T7 stated that “the ministry supports inclusion theoretically, but practical implementation is very weak,” and T5 similarly observed that “efforts exist, but practical application remains limited.” Teachers described inconsistent access to facilities and resources, with T6 noting that “only some schools are equipped.” Many teachers indicated that inclusive policies lacked concrete operational frameworks at the school implementation level. Several participants highlighted the absence of standardized procedures for adapting PE activities or evaluating students with PD. T4 explained that “schools do not provide clear instructions on how to include students with physical disabilities,” which reinforced teachers’ reliance on individual assessment.

4.3.2. Subtheme 3.2: Absence of Monitoring and Structured Guidance

Teachers further emphasized the lack of systematic follow-up mechanisms to ensure effective inclusion. T2 stated that “there is no follow-up or monitoring of the inclusion process,” leading to uncertainty regarding instructional expectations and accountability. Participants reported that assessment practices were largely informal and teacher-driven, with limited educational authority guidance. Additionally, teachers expressed concern that details regarding students with PD were not consistently communicated in advance, which limited their opportunity for to adequately prepare for the student’s inclusion. Furthermore, T5 noted that “schools often failed to provide detailed documentation regarding students’ needs, constraining teachers’ ability to plan inclusive lessons proactively.”

4.3.3. Subtheme 3.3: Parental and Socio-Cultural Influences on Participation

Parental attitudes were consistently identified as a major factor influencing students’ engagement in inclusive PE. While most teachers reported general parental support for inclusion, participants emphasized that safety concerns frequently limited students’ participation. T8 explained that “parents hesitate because they are worried about physical and psychological harm,” and T5 similarly noted that “some parents are afraid that their children may get injured during physical activities.” T4 added that parents “often overprotect their children because they believe physical education may expose them to risk.” These accounts suggest that parental support is often conditional and shaped by perceptions of vulnerability. Teachers further reported that parental anxiety sometimes led to restricted participation or requests for exemption from otherwise inclusive activities. T6 observed that “some parents prefer their children to avoid certain exercises because they fear accidents,” while T3 stated that “parents sometimes ask for lighter activities even when the student is

capable of participating.” Participants emphasized the need for improved communication between schools and families to reduce parental hesitation and foster greater trust. T2 stated that “parents need more guidance and reassurance about inclusive physical education,” and T5 highlighted that “when parents understand the adaptations we use, they become more cooperative.”

In terms of socio-cultural and religious influences, participants largely indicated that religious beliefs themselves did not directly obstruct inclusion. However, teachers acknowledged that powerful societal perceptions of disability continue to shape attitudes toward participation. T4 noted that “some people in society still see disability as a limitation rather than a capability,” a mindset that can indirectly influence family decisions, especially when cultural values hold strong authority within the familia structure. T2 further explained that cultural expectations, particularly regarding female students, may affect participation patterns, stating that “in some cases, cultural sensitivity regarding girls’ participation in physical activities must be considered.”

4.4. Theme 4: Teachers’ Recommendations for Strengthening Inclusive PE

Beyond identifying challenges, teachers provided comprehensive recommendations to enhance the implementation of inclusive physical education in Saudi schools. These recommendations recognize inclusion as dependent on coordinated institutional, pedagogical, and community reforms. The recommendations encompassed five subthemes: (1) professional preparation and capacity building, (2) policy implementation and governance mechanisms, (3) infrastructure and material resources, (4) curriculum reform and pedagogical guidance, and (5) student and parental engagement.

4.4.1. Subtheme 4.1: Strengthening Professional Preparation and Capacity Building

Teacher preparation was identified as the most frequently prioritized area for reform. Participants advocated for structured, specialist-led training at both university and in-service levels. For example, T1 recommended the introduction of “dedicated inclusion modules in university programs for PE teachers.” This statement was supported by T2, who emphasized the integration of inclusive PE coursework and practicums into teacher preparation curricula. T3 further argued that inclusive PE modules should be “mandatory components of university teacher preparation programs” to ensure that graduates acquire both theoretical knowledge and practical competence. Participants criticized the reliance on isolated workshops, instead calling for structured professional development pathways that include follow-up support. As T3 noted, professional learning “should move beyond one-off workshops toward sequenced training programs with follow-up support and classroom application.” T6 suggested the establishment of “peer-learning networks and professional experience exchange,” underscoring the value of collaborative professional communities.

4.4.2. Subtheme 4.2: Policy Implementation, Monitoring, and Accountability

Teachers highlighted the need for robust governance mechanisms to ensure effective implementation of inclusive policies in daily practice. Although existing regulations were acknowledged, participants contended that implementation lacked systematic monitoring. T2 recommended “periodic review cycles and on-the-ground monitoring of integration policy implementation,” and T3 called for “clear operational guidelines at the school level, particularly for physical education contexts.” Additional proposals included anti-bullying protocols and risk management procedures tailored to PE. T2 advocated for “anti-bullying protocols specific to PE and unstructured times,” while T7 stressed the importance of addressing bullying “through school-wide interventions.” Ultimately, these findings suggest that for Saudi Arabia’s inclusive education goals to be realized, the transition from

high-level policy to school-level practice requires stringent oversight and clear, actionable frameworks that move beyond abstract mandates into structured daily routines.

4.4.3. Subtheme 4.3: Infrastructure and Material Resources

Participants consistently highlighted the necessity of infrastructure improvements that align with policy directed accessibility standards. T1 recommended the provision of “accessible entries/exits, elevators, and adapted facilities,” while T5 advocated for upgrading infrastructure to include “adapted bathrooms and wider corridors.” These two statements were expanded on by T6, who emphasized the importance of “specialized adaptive sports equipment” availability, while T3 called for “equitable facility upgrades across all regions, not just urban or well-resourced schools.” Teachers concurred that adaptive equipment should fulfill a pedagogical function rather than serve as a mere symbol. T3 further asserted that investment decisions should be informed by “actual pedagogical needs identified by teachers.”

4.4.4. Subtheme 4.4: Curriculum Reform and Pedagogical Guidance

Participants advocated curriculum reform to minimize reliance on individual discretion, with T1 recommending integrating “inclusive PE activities, adaptation guidelines, and assessment strategies into the official curriculum,” T6 calling for “standardized inclusive curriculum adaptations instead of relying solely on teacher discretion,” and T2 proposing the development of “teacher guides with ready-to-use modifications for popular sports and mixed-ability grouping strategies.” These statements all support the need for assessment reform emerged as a priority, with T3 suggesting revisions to existing frameworks that would directly recognize “adaptive participation, effort, and individual progress,” rather than comparing students with disabilities to their non-disabled peers.

4.4.5. Subtheme 4.5: Student Support, Peer Culture, and Parental Engagement

Participants identified student confidence, peer relationships, and parental attitudes as critical factors for successful inclusion. Several participants suggested implementing peer-buddy systems and cooperative learning approaches. T2 recommended “peer-buddy systems and structured inclusive games,” while T7 emphasized “peer cooperation and inclusive group activities.” Confidence-building for students with disabilities was frequently mentioned. T5 advocated for “confidence-building interventions,” and T6 highlighted “encouragement-based strategies” to promote participation.

Participants also called for awareness programs to foster acceptance and reduce stigma within schools. Parental engagement was regarded as essential for sustained participation. T3 proposed “formal parent–teacher communication frameworks focused on inclusion in physical education,” and T5 suggested “parental awareness sessions addressing safety concerns.” Participants stressed the importance of co-creating participation plans with families to transform parental apprehension into collaboration.

5. Discussion

The findings are interpreted through Vygotsky’s social constructivist theory, which views learning as a socially mediated process shaped by cultural and institutional contexts. Teachers’ perceptions of inclusive PE emerged not as fixed individual attitudes, but as understandings constructed through professional experience and policy engagement.

The Zone of Proximal Development (ZPD) is defined as the gap between an individual’s current competence and what they can achieve through targeted scaffolding and guidance. Aligned with this concept, participants articulated a pronounced need for systematically structured professional growth opportunities to enhance their inclusive competence. While committed to inclusion, teachers acknowledged that a lack of specialized coursework

and practicum experiences limited their initial readiness. Their requests for workshops and expert guidance indicate that inclusive competence is viewed as attainable, yet dependent on systematic scaffolding. From this perspective, such support enables a progression from uncertainty toward confident, inclusive practice, moving beyond the reactive, experiential learning currently reported in Saudi PE settings.

The results highlight the significance of intersubjectivity, the shared understanding built through dialogue, shaping teachers' perceptions. Saudi PE teachers emphasized that engaging with parents and students was essential for negotiating practical strategies and interpreting individual needs. Since parental concerns about safety and socio-cultural views of disability heavily influence inclusive practice, intersubjectivity is more central to success than policy directives alone. Consequently, a broader educational effort is needed to help parents understand inclusive PE practices; by building this trust, schools enable parents to rely on teachers to proactively provide a safe, inclusive environment.

At a broader level, the concept of enculturation provides a framework for understanding how inclusive education is embedded within institutional and societal contexts. Participants acknowledged national policy support for inclusion, suggesting that inclusive values have been partially internalized within the professional culture of Saudi education. However, teachers described weak implementation mechanisms, limited monitoring, and infrastructure inadequacies. The thematic analysis suggests that while inclusive norms are symbolically endorsed, they have not yet been fully operationalized within Saudi Arabian school systems. Teachers' perceptions continue to be shaped by institutional ambiguity, resulting in incompatibility between policy expectation and everyday practice.

While Saudi Arabian PE teachers generally support inclusion for its social and academic benefits, they face persistent challenges in instructional adaptation, classroom management, and safety supervision. Despite a strong willingness to include students with physical disabilities (PD), participants reported that a lack of practical pre-service and in-service training leaves them ill-equipped to manage the increased demands of inclusive lesson planning (Alhumaid, 2022; Alquraini, 2011; Meregi et al., 2025). Current professional development remains overly theoretical, failing to provide the discipline-specific strategies required for the complexities of a PE environment (Granell et al., 2021). Consequently, there is a critical need for educational decision-makers to provide high-quality, contextually relevant training that integrates theoretical knowledge with applied, "on-the-ground" practice to effectively prepare teachers for inclusive delivery (Alhumaid, 2022).

Beyond professional preparation, parental involvement emerged as a crucial determinant of inclusion and student participation. Although Saudi Arabian teachers generally viewed parents as supportive, concerns about injury and emotional well-being sometimes led families to limit their children's participation in inclusive PE classes. This finding is consistent with prior research showing that learner motivation is shaped by individual, familial, and social reinforcement (Meregi et al., 2025). When families are disengaged or unaware of the benefits of PE for students with PD, participation rates decline. Safety concerns were particularly salient, highlighting parental apprehension regarding potential injury risks for students with PD and their peers. These results highlight the importance of clear communication with families to explain safety protocols and instructional adaptations, as parental trust is essential for sustaining inclusive participation. The findings also pointed to the need for parental sensitization programs to foster ongoing encouragement and collaboration between school and home. Consistent with Willis et al. (2019), teachers indicated that regular parent-teacher dialogue and collaborative goal setting increased students' enthusiasm and perseverance. Overall, the evidence suggests that inclusive PE depends on robust support and broad education networks that extend from the classroom into the home.

Participants identified negative peer attitudes and social exclusion as major obstacles to meaningful participation. Teachers observed that students with PD were sometimes marginalized during group activities or viewed as hindering team performance. Bullying was reported to manifest in distinctive ways within physical education classes, which are characterized by competition, performance emphasis, and high social visibility. In these environments, where physical competence and social approval are prioritized, bullying can significantly impact students' school satisfaction and experiences of inclusion. Factors such as competitive dynamics, insufficient supervision, and skill disparities often contribute to conditions that enable bullying behaviors (Sağın et al., 2022). Bullying in PE classes is structurally distinct from bullying in other academic contexts. Features unique to PE, including physical performance, body image, and the visibility of individual abilities, intensify social comparison and competition, thereby increasing the frequency and directness of bullying incidents. Students with lower skill levels, particularly in activities focused on physical performance, are more susceptible to ridicule, exclusion, or humiliation by their peers (Jesina et al., 2022). The findings suggest that, while PE classes can foster social skills and solidarity, they may also create environments conducive to bullying if not carefully structured. Furthermore, the competitive and comparative aspects of PE classes can generate psychological and social pressures, potentially leading to negative outcomes, such as school burnout. Therefore, it is imperative for PE teachers to design inclusive class content and implement strategies that balance competition, promote social acceptance, reduce bullying, foster empathy, and minimize social exclusion.

Teachers further identified persistent gaps between national inclusive policies and their implementation at the school level. Although Saudi educational policy formally endorses inclusion, participants noted a lack of sufficient guidance on curriculum adaptation, assessment procedures, and monitoring mechanisms. Teachers expressed uncertainty regarding evaluating students with PD and often relied on personal judgment for grading and adaptation. This highlights the need for more explicit translation of policy into operational guidelines specific to PE. One possible explanation for these findings is that participants may not have been aware of the most recent legislative or policy changes regarding the inclusion of students with PD. While many countries began modifying their educational systems to support inclusive PE practices at the end of the twentieth century, Saudi Arabia has only recently initiated such reforms (Alharbi & Madhesh, 2018). Therefore, these findings reflect that PE teachers continue to experience a disconnect between recent policy changes related to teaching students with PD and their capacity to implement inclusive PE practices effectively.

Teacher sex/gender was initially identified as a potential confounding variable due to the gender-segregated structure of the Saudi Arabian education system. However, based on the themes that emerged from this study, sex/gender did not appear to be a primary determinant in identifying the core challenges of inclusion, such as the need for enhanced pre-service training and improved infrastructure support. Nonetheless, certain subtle distinctions were observed. While both male and female teachers articulated generally positive attitudes toward inclusion, issues related to cultural sensitivity and the perceived overprotection of students were more frequently and explicitly raised in relation to female student populations. In the Saudi socio-cultural context, where PE for girls is a more recent addition to the public-school curriculum, female teachers often navigate heightened parental anxiety. Parents of girls with PD may exhibit greater reluctance to allow participation, driven by a complex intersection of cultural norms emphasizing female physical modesty, perceived physical vulnerability, and protection. Consequently, female PE teachers frequently reported needing to invest significantly more effort into building trust with families and reassuring parents about safety and privacy than their male counterparts.

Although the pedagogical challenges associated with inclusion were perceived in largely comparable ways by teachers of both sexes, the socio-cultural dimensions of negotiating inclusive practices require distinctly different forms of parental engagement according to the gender composition of the student body. Overall, male and female educators reported broadly similar views across most thematic areas, particularly in relation to professional preparedness and policy enactment, suggesting that many of the obstacles to inclusion are systemic rather than sex specific.

The findings indicate teachers generally hold positive views toward inclusion and recognize its social and educational value. However, there is a clear disconnect between teachers' commitment to inclusive ideals and their ability to put these practices into action. Barriers such as limited pre-service preparation, insufficient professional development opportunities, safety concerns, peer dynamics, and inconsistent institutional support all emerged as significant challenges. These issues suggest that advancing inclusive PE in Saudi Arabia will require more than just isolated interventions—it calls for systemic alignment between policy objectives, teacher education programs, and school-based support structures.

It is important to note that while many of the challenges identified in this study, such as the need for structured professional development and improved peer interactions, are relevant to disability inclusion broadly, the specific focus on PD highlights unique infrastructural constraints. For example, including students with intellectual or sensory disabilities often requires cognitive scaffolding, advanced behavioral management, and communication adaptations; for students with PD, spatial modifications, accessibility, and physical safety are heavily emphasized. Future research should explore how PE teachers' experiences and preparedness differ when accommodating students with intellectual, sensory, or multiple disabilities, as the required pedagogical strategies may diverge significantly from those identified in this study.

The conducted study includes limitations that need consideration. The study employed a convenience sample of PE teachers from a single geographic region, which restricts the generalizability of the results. Additionally, participants shared similar educational backgrounds, which may have influenced their perspectives. Consequently, further research is necessary to confirm the perceptions reported. Future studies should investigate the impact of teachers' beliefs and practices on successful inclusion, employing learning theoretical frameworks to enhance understanding of the topic.

A primary limitation of this investigation is the exclusive reliance on self-reported interview data without the triangulation of direct classroom observations. Consequently, the findings reflect teachers' articulated perceptions, intentions, and perceived barriers regarding inclusive practice, rather than their verified pedagogical actions within the gymnasium. This distinction is critical, as a well-documented disconnect often exists between espoused inclusive beliefs and actual classroom implementation, sometimes driven by social desirability bias or unrecognized contextual constraints. Because this study captures what teachers report rather than what they do, the interpretation of how these systemic barriers directly impact real-time classroom practice must be approached with caution. Future research should incorporate observational methodologies to triangulate these findings and examine how the attitudes and challenges identified in this study manifest in authentic physical education settings.

Additionally, it is worth noting that while PE teachers in this study expressed a willingness to support students with physical disabilities, the lack of targeted training and workshops was evident. Moving forward, it will be essential to offer comprehensive training to teachers and monitor how students, teachers, schools, and families can benefit

from such programs. This could foster better engagement with students with disabilities and promote greater understanding and inclusion across the educational community.

6. Conclusions

The inclusion of students with PD in mainstream PE is shaped by teachers' perceptions, professional preparedness, and the institutional environments in which they work. Although international and national policies frame inclusion as a fundamental educational right, its realization ultimately depends on teachers' capacity to translate inclusive principles into everyday classroom practice while navigating contextual constraints. This study contributes to the growing literature on inclusive physical education by examining Saudi Arabian PE teachers' perspectives and identifying how professional training, awareness of inclusive policies, and school-level conditions influence their readiness to support diverse learners. The findings indicate that teachers generally hold positive views toward inclusion and recognize its social and educational value. However, a clear disconnect emerged between teachers' commitment to inclusive ideals and their ability to enact these practices effectively. Limited pre-service preparation, insufficient professional development opportunities, safety concerns, peer dynamics, and inconsistent institutional support were perceived as significant barriers. These challenges suggest that advancing inclusive PE in Saudi Arabia requires more than isolated interventions; it necessitates systemic alignment between policy objectives, teacher education programs, and school-based support structures.

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