



EXPLORING TEACHING STRATEGIES IN PHYSICAL EDUCATION: A CROSS-NATIONAL REVIEW OF PRACTICES IN CHINA AND PAKISTAN

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Abstract

The current study provides a cross-national comparison of physical education (PE) teaching strategies employed in Chinese and Pakistani secondary schools guided by the analytical lens of comparative education theory. In order to investigate PE teaching strategies, pedagogical frameworks, and the sociocultural and policy contexts influencing physical education in both nations, the research synthesizes empirical studies, policy documents, and curriculum guidelines using an integrative literature review methodology. The findings of the research show that China employs a systematic, innovation-focused, and policy-driven approach that combines conventional techniques with technology-enhanced instruction, student-centered learning, the Tactical Games Approach (TGA), and comprehensive health education. The strategies align with the national struggle including Healthy China 2030, focusing on PE exercises that people should perform throughout their lives, their health, and mental health. In Pakistan, PE instruction is teacher-centered and mostly traditional, which focuses only on command-style teachings, limited curriculum innovation and direct instruction. Educational progress is further hindered by the lack of resources, lack of PD training and prioritization of policies. Nevertheless, these differences notwithstanding, both systems identify the importance of PE in enhancing the physical and socio-emotional development of children. The current study concluded with several recommendations on changes in the curriculum, policy development and provision of teacher training, especially in Pakistan, to develop a more holistic, effective and attractive PE program. This review contributes to a more comprehensive knowledge of how educational policy, culture, and resources influence PE practices, providing significant insights for reform in similarly organized educational systems.

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1. Introduction

Education is a systematic process that uses planned learning experiences to promote significant changes in knowledge, abilities, and behaviors. Teaching strategies are crucial because they transform learning objectives into effective classroom practices that successfully guide and facilitate students' learning (Orlich et al., 2010). Teaching strategies in physical education (PE) have a direct impact on students' motivation, health awareness, physical competence, and lifetime participation in physical exercise. Physical education is a structured, tested component of global school curricula that promotes physical health, social development, self-discipline, and general well-being (Solmon, 2021). Its success, however, is dependent on curriculum implementation and teaching methodologies influenced by cultural, policy, and socioeconomic settings. In China, PE has gained significant policy attention as part of national goals for fitness development and international sporting achievement. Cultural values stressing discipline, collaborative achievement, and tenacity, together with government-led programs, have had a significant impact on PE practices (Jin, 2013). Chinese secondary schools use a well-organized PE curriculum that emphasizes systematic training and early skill development, whereas national strategies prioritize both competitive sports and overall physical development (Donaire, 2024; Zheng & Chen, 2016). While early talent identification has helped to China's international success, such specialization may have psychological and developmental consequences, such as stress, burnout, and fewer possibilities for late-developing adolescents. From an instructional standpoint, Chinese PE teachers combine direct instruction, demonstrations, and structured practice with student-centered strategies like the Tactical Games Approach (TGA), which promotes tactical awareness and decision-making (Zhang et al., 2024). Recent reforms prioritize autonomy through goal setting, self-evaluation, and activity selection, while technology (activity trackers, apps, and flipped classrooms) improves personalized learning and motivation (Bhardwaj et al., 2025). These practices are consistent with the "Healthy China 2030" approach, which integrates exercise, mental health, nutrition education, and traditional activities such as Tai Chi (Nguyen, 2013; Zeng et al., 2018). Despite these advances, obstacles remain, such as resource inequities between urban and rural areas, academic emphasis over physical education, insufficient professional training, and resistance to pedagogical innovation (Liu et al., 2023; Dai & Menhas, 2020). Traditional assessment systems also struggle to capture overall progress.

On the other hand, PE in Pakistani secondary schools is still mostly teacher-centered and is hampered by big class sizes, a lack of equipment, and insufficient finance (Anjum & Tapio, 2025). There are little chances for autonomy or inquiry-based learning, and instruction mostly consists of direct instruction and drills (Iqbal et al., 2021). Sports, team activities, and theory-based lectures are used, but they are frequently constrained by a lack of resources and unqualified teachers, particularly in rural regions (Kao, 2019; Tianio et al., 2022; Manos, 2024). Following the 18th Amendment, fragmented policy has made it more difficult to implement curricula consistently, assign teachers, and provide resources.

There is still a significant lack of comprehensive cross-national comparative studies, despite an increasing amount of research looking at physical education (PE) changes in China and the structural difficulties PE faces in Pakistan. Most of the research that has already been done has either focused on national reform programs, like China's curriculum modernisation, or on local implementation issues, like Pakistan's lack of resources and institutional support. Few studies, however, incorporate these viewpoints into a systematic comparative framework to investigate how sociocultural factors, governance structures, and policy coherence influence secondary school physical education classroom instruction. As a result, less analytical focus has been placed on comprehending how variations in curriculum alignment, teacher preparation, and policy execution result in different educational approaches in various national contexts.

In order to fill this gap, the current study makes use of comparative education theory, which views educational systems as the outcome of socioeconomic conditions, cultural norms, and larger governance models. Using this approach, the study examines curriculum orientation, instructional tactics, and frameworks for implementing policies to examine PE teaching practices in China and Pakistan. The research specifically aims to:

- I. Identify the PE teaching strategies utilized in both countries
- II. Compare the PE policies, instructional practices and PE curriculum in these two countries

2. Theoretical Framework

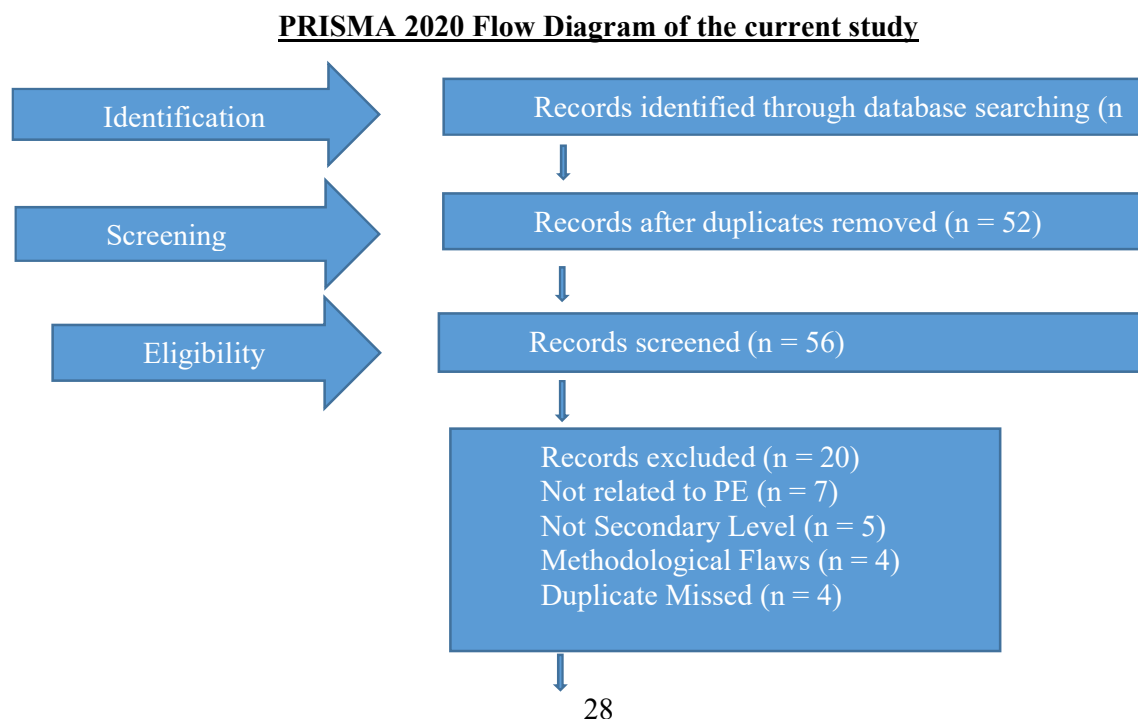
This study applies comparative education theory to understand how country governance frameworks influence classroom pedagogical practice. Comparative education theory views education as a socially embedded system influenced by political authority, cultural norms, and socioeconomic organization, rather than a neutral technical activity. This perspective's intellectual foundations date back to Marc-Antoine Jullien (1817), who introduced systematic cross-national analysis, and were expanded upon by Michael Sadler (1900), who emphasised

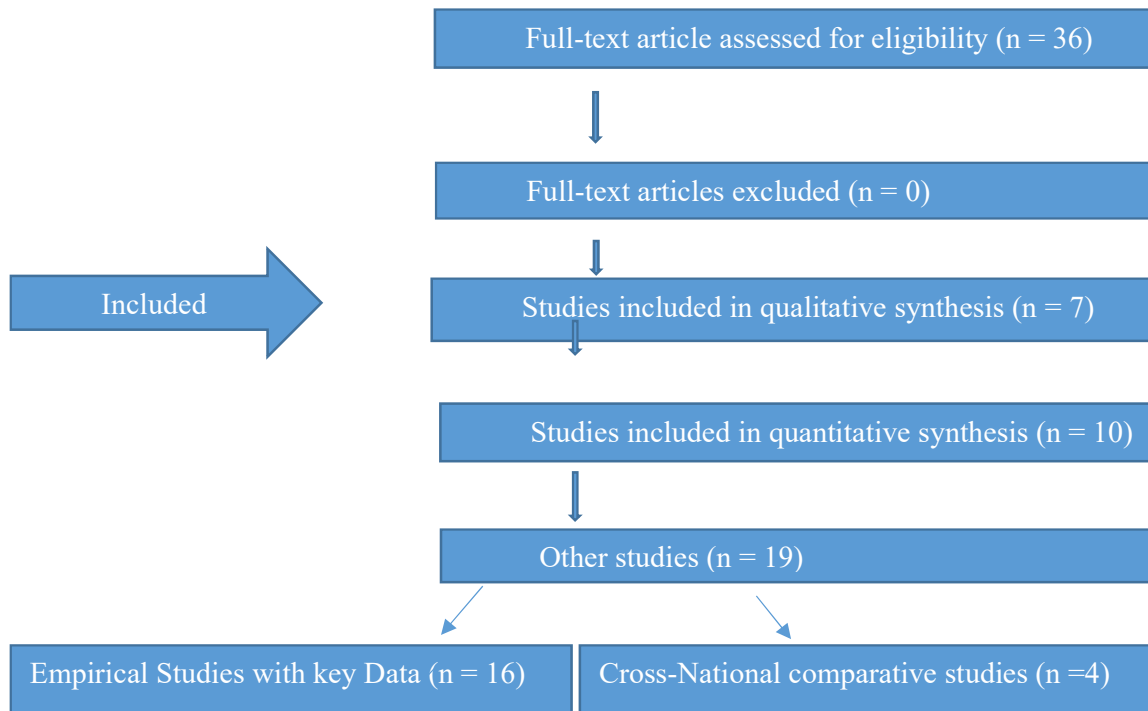
the importance of interpreting educational systems within their historical and cultural contexts. Subsequent contributions by Nicholas Hans (2012) and George Bereday (1964) supported the notion that curriculum architecture and instructional techniques reflect underlying ideological and institutional systems. Using this paradigm, disparities in secondary school physical education (PE) teaching practices in China and Pakistan are seen as structurally mediated results of differing policy coherence, state capability, and governance structures. This approach allows the investigation to progress from descriptive comparison to a systemic explanation of educational divergence.

3. Methodology

The current study used a systematic and integrative literature review to compare, analyze, and assess physical education teaching strategies at the secondary school level in China and Pakistan. This method made it easier to collect, assess, and synthesize the body of the available literature in a methodical manner, which help to establish a thorough and comparable understanding of PE policies and teaching strategies in both the nation. This review procedure followed the scholarly guidelines for conducting narrative and thematic literature evaluations established by Papaioannou et al. (2010). Further, the review process was reported in accordance with PRISMA guidelines.

Figure 1





PRISMA Flow Diagram

4. Search Strategies and Screening Process

To ensure methodological rigor, the study followed a multiphase review process, comprising literature identification, screening, eligibility assessment, and theme based synthesis. During the identification phase, comprehensive searches were conducted across multiple academic databases using Boolean combination of relevant keywords, including “physical education” and "PE teaching strategies," and "China," or "Pakistan," "secondary schools," "student-centered learning," and "curriculum implementation," relevant research was obtained from different kinds of academic databases, including the Web of Science, ERIC, and Google Scholar. Searches were restricted to peer-reviewed publication in English, published between 2007 and 2025. This initial search yielded 56 records. During the screening phase, 20 studies were excluded due to not being related to PE (n=7), not focusing on the secondary school level (n=5), methodological flaws (n=4), or being duplicates neglected prior (n=4). Finally, thirty-six studies that matched well the aim and thematic framework of the study were reviewed critically.

Further, those studies were included which were published between 2007 and 2025 by ensuring the incorporation of current research tendencies. Those publications were excluded that offered anecdotal or non-systematic findings, only addressed tertiary education, or failed to address relevant themes. Evaluation of each document was done on the basis of

methodological quality, objective clarity, contextual significance, and robustness of findings. Similarly, special attention was paid to empirical research that demonstrated significant data analysis and offered practical suggestions for PE policy and practices. Furthermore, preferences were given to those studies who examined the institutional, governmental and cultural influences on PE teaching strategies because of their applicability to the cross-national comparative approach.

The data from the selected studies were then synthesized using thematic analysis to categorize and integrate findings across contexts. Following Terry et al.'s (2017) guidance, the study used iterative coding and theme development to identify essential teaching strategies and contextual elements influencing PE instruction in each nation. These themes were used to better understand common instructional strategies, like Direct Instruction, Tactical Games Approach (TGA), Student-Centered Learning, Command Style, and Lecture-Based Methods. To facilitate cross-national comparisons, a matrix framework was created. In this matrix, rows represented particular studies or sources, and columns indicated important topics (e.g., teaching methods, assessment methodology, technological integration, policy alignment). This format allowed the researcher to find parallels, differences, and gaps in PE instructional techniques between China and Pakistan in a graphically structured and analytical way.

The final synthesis of findings entailed linking emergent themes to larger educational aims, policy directions, and instructional philosophies in each environment. In China, the emphasis has been on structured, policy-aligned, and innovation-driven approaches influenced by national strategies such as "Healthy China 2030." In contrast, PE strategies in Pakistan were found to be more traditional, underfunded, and teacher-centered, indicating institutional restrictions and limited curriculum innovation. This methodologically rigorous review process ensured that the conclusions drawn were based on a comprehensive body of literature, allowing for evidence-based recommendations for future PE curriculum development, teacher training, and policy reform in both national contexts. Thus, the methodology used in this study leads to a more nuanced and culturally informed understanding of physical education pedagogy across various educational systems.

5. Results

Identification of teaching strategies utilized in PE across China and Pakistan.

Table 1: PE teaching strategies utilized by Chinese PE teachers

Strategies	Explanation	Application/ Examples	Focus Areas
Direct instruction and demonstration	Teacher led structured skill development	Volleyball, basketball and football	Sport specific skills mastery
Tactical game approach	Improve decision making during game	Reformed small sided game and tactical drill	Problem solving and awareness
Student centered learning	Encouragement of self-assessment and autonomy	Self-evaluation and personal goal fitness	Lifelong fitness habit and motivation
Structured training	Well-disciplined physical environment	Routine based fitness and mandatory exercise	Self-discipline and physical fitness
Specialization and identification of talent	Regular athlete development from the early age	Elite training programs and sports academics	Excellence in sports competition
Fitness related activities	Alignment to national standard fitness	Cardiovascular, strength, flexibility	Health, strength national fitness goals
Blended learning and technology	Digital tools integration for engagement	Flipped classroom, apps, fitness trackers	Data tracking , personalized instruction
Inquiry and project based learning	Encourage critical thinking and research	Study sports injuries, designing workout plan	Independent learning, problem solving
Overall health education	Combination of PA and well-being	Tai Chi, nutrition lessons, Yoga	Lifelong fitness, mental health
Multifaceted assessment	Performance based evaluation	Health awareness, progress, participation	Comprehensive development, engagement

Table 1 displays the wide range of teaching strategies used by Chinese physical education (PE) teachers, demonstrating a well-balanced fusion of conventional methods, cutting-edge techniques, and policy-driven goals meant to promote the students' overall development. Direct instruction and demonstration methods remain essential, with a focus on organized skill development in sports like basketball, volleyball and football. Customized game setting are used to improve planned awareness and decision making through implementation of tactical game based approach, which prioritizes strategic thinking over rote execution.

However, student-centered learning approach that foster students; intrinsic motivation, empowers students to assess themselves and set personal fitness goals, which help to promote lifelong physical exercise. In order to direct high-potential kids toward elite sports pathways, Chinese physical education also places a great focus on Talent Identification, Early Specialization, and Structured and Rigorous Training. Fitness-Oriented Activities, including national fitness initiatives, aim to improve cardiovascular health, strength, and flexibility. The integration of technology and blended learning, such as fitness applications, wearables, and flipped classroom formats, improves tailored instruction and performance tracking.

Project-Based and Inquiry-Based Learning strategies are used to promote deeper learning by giving students assignments like creating workout schedules or conducting research on subjects such as prevention from injury. This technique develops and encourages the independent reasoning and problem solving skills of students. Moreover, by integrating PA training like yoga, tai chi, and sessions on mental and nutritional health, helps to foster the overall wellbeing of health education. Finally, by assessing the participation of students, individual progress and health literacy in addition to traditional performance measures, comprehensive evaluation method can offer a more complete shape of students' progress and engagement in PE.

Table 2: PE teaching strategies utilized by Pakistani PE teachers

Teaching strategies	Description	Applications/ Examples	Focus
Direct Instructions	Teacher-led skill demonstration and imitation	Demonstrating kicking (football), throwing (cricket)	Skill mastery, uniformity
Command Style	Teacher controls all aspects of the lesson (warm-ups, drills, games)	Structured drills, military-style exercises	Discipline, order

Practice & Demonstration	Repetitive drills after teacher modeling	Basketball dribbling drills, badminton serves	Skill reinforcement
Group/Team-Based Learning	Collaborative activities in sports	Football matches, volleyball tournaments	Teamwork, cooperation
Question-and-Answer Method	Verbal reinforcement of rules/knowledge	Quizzes on game rules, safety protocols	Theoretical understanding
Lecture-Based Instruction	Oral explanations for theory sessions	Health benefits of exercise, sports safety	Knowledge transmission
Structured Drills	Pre-planned, repetitive exercise	Warm-up laps, agility drills	Physical conditioning

This shows that physical education (PE) in Pakistani secondary schools is taught mostly using a traditional, teacher-centered model, with little focus on inquiry-based learning or student autonomy. The most popular teaching approaches are Direct Instruction, Command Style, and Practice and Demonstration; these emphasize discipline, skill mastery, and repeated practice of motions like basketball dribbles or football kicks. Group/Team-Based Learning is sometimes implemented to foster teamwork, although it typically occurs in the environment directed by teacher. The question answered method and lecture based learning are used in theoretical education to convey the idea and concept such as rules and health benefits, with focus on knowledge transmission rather than fostering critical thinking of the students. Well-structured drill is used frequently used to enhance physical fitness and foster a steady and disciplined learning environment. In general, PE in Pakistan still based on rigid, skill centered system, with limited integration of creative approach or student centered.

6. Comparison of PE policies, instructional practices and PE curriculum

This part of the results highlights and compares PE teaching strategies employed by PE teachers at secondary school level in China and Pakistan.

Table 3: Comparison of PE teaching strategies (China & Pakistan)

Dimension	China	Pakistan
Instructional Orientation	Blended approach combining direct instruction with student-centered and competency-based pedagogies	Teacher-centered; command style and direct instruction

Pedagogical Approaches	Tactical Games Approach, inquiry-based and project-based learning to promote decision-making autonomy	Focus on drill and imitation with limited use of innovative approaches
Skill Development Focus	Specific sport instruction linked to talent identification and long term development	Basic skill instruction in selected sports with limited progression
Student Agency	Students set goals, select activities, and reflect on learning outcomes	Minimal opportunities for student choice or self-reflection
Integration of Technology	Systematic use of apps, fitness trackers, and flipped classrooms for monitoring and feedback	Lack or absent due to infrastructure and policy constraints
Fitness and Health Orientation	Structured fitness programs aligned with national health standards and lifelong activity such as Tai, Chi, Yoga and Swimming	Basic fitness exercise with short-term performance focus
Health and Wellness Education	Integrated physical, mental health, and nutrition education under 2030 Healthy China	Irregularly addressed, main focus on theory
Assessment Practices	Multidimensional assessment procedure (Participation, skills, health awareness and effort)	Almost summative based on attendance or performance

Table 3 illustrates the key differences in secondary school PE between China and Pakistan. In Chinese secondary schools, PE adopts a blended and student-centered approach emphasizing sport-specific skill development with integration of technology and holistic health in line with national education policies. This can foster student autonomy, decision-making power, and lifelong participation in PA. However, in Pakistan, PE is predominantly teacher-centered which focuses on drill-based skill practices with limited use of technology and narrow assessment practices. These patterns reflect fragmented policy implementation, constrained resources and socio-economic disparities. The results demonstrate that differences in instructional strategies are a reflection of underlying institutional and governance structures rather than merely pedagogical preferences. The Tactical Games Approach, project-based learning, and technology integration are examples of instructional diversity that seems to be institutionalised

in China through centralised curriculum alignment and continuous professional development investments.

On the other hand, systemic limitations including disjointed policy execution, inadequate teacher preparation, and limited infrastructure resources are reflected in Pakistan's predominance of command-style and drill-based techniques. Therefore, rather than being only related to teacher decision-making, the differences in teaching styles are analytically linked to policy coherence, institutional capabilities, and assessment reform. The significance of systemic alignment in PE curriculum design, governance frameworks, and teacher professional development is emphasised in this study.

7. Discussion

This review provides a comparative analysis of physical education (PE) teaching strategies at the secondary school level in China and Pakistan, revealing how pedagogical practices are shaped by national policy orientations, governance structures, and broader socio-economic condition. The findings indicate that China has developed a coordinated and multifaceted PE system that integrates traditional direct instruction with contemporary student-centered and competency-based pedagogies. This integrated approach extends beyond physical skill acquisition to promote lifelong health awareness, physical literacy, and holistic well-being. In contrast, PE instruction in Pakistan remains constrained by structural, policy, and socio-economic challenges, resulting in a continued reliance on teacher-centered, command-style instructional practices. A key explanatory factor underlying these differences is the degree of policy coherence and governance capacity.

In China, physical education is positioned as a strategic component of the national education agenda and is closely aligned with state-led initiatives such as Healthy China 2030, which conceptualizes PE as fundamental to students' physical, mental, and emotional development. Centralized education governance enables consistent curriculum implementation, sustained public investment, and systematic monitoring across regions. As a result, Chinese secondary schools are institutionally supported to adopt innovative pedagogies and integrate technology-enhanced instruction at scale. Consistent with this policy environment, the findings show that Chinese PE teachers employ a diverse repertoire of instructional strategies, including inquiry-based learning, project-based learning, and the Tactical Games Approach (TGA). These approaches align with contemporary shifts toward competency-based education and learner autonomy, moving beyond traditional drill-oriented models. Williamson's (2023)

findings support this trend, demonstrating that project-based learning enhances students' critical thinking and decision-making abilities.

At the same time, Collins (2014) cautions that the effectiveness of such approaches depends on structured teacher guidance, highlighting the importance of pedagogical balance rather than the wholesale rejection of direct instruction. In this regard, China's blended pedagogical model combining guided instruction with student-centered learning appears particularly effective. Furthermore, the integration of digital technologies in Chinese PE, including interactive platforms and personalized fitness-tracking applications, facilitates differentiated instruction, continuous formative assessment, and increased student motivation. This finding aligns with Chen et al. (2020), who reported that Chinese PE teachers employ varied instructional strategies aimed at enhancing students' motivation and self-confidence. Importantly, this technological integration should not be viewed merely as an instructional choice, but rather as the outcome of sustained public investment, centralized policy coordination, and institutional capacity. These enabling conditions support teacher professional development, infrastructure provision, and alignment of assessment systems with instructional goals.

Moreover, Qin et al. (2025) stated that China's PE curriculum also reflects a holistic health orientation through the inclusion of culturally grounded practices such as Tai Chi and yoga. These practices promote mindfulness regulation, and stress reduction alongside physical fitness, reinforcing a broader conception of health and well-being (Deshmukh et al., 2024). Assessment practices further support this comprehensive approach by emphasizing participation, effort, health awareness, and skill development, consistent with the international call for authentic and formative assessment in physical education (Alhassan & Ibrahim, 2024).

In contrast, the limited adoption of innovative pedagogies and educational technologies in Pakistani secondary school PE cannot be explained solely by material resource shortages. Rather, it must be situated within a complex socio-political context shaped by governance fragmentation following the 18th Constitutional Amendment. The devolution of educational authority to provincial governments has produced inconsistencies in curriculum frameworks, uneven funding distribution, and weak interprovincial coordination (Jamil, 2007). This fragmented policy landscape has hindered the development of a coherent national vision for PE and constrained large-scale investment in teacher training, curriculum innovation, and technological infrastructure.

These governance challenges are further intensified by pronounced socio-economic inequalities, particularly between urban and rural schools (Siddiqui 2025). In many under-

resourced settings, PE is marginalized as a non-examinable or low-priority subject, while institutional emphasis remains firmly placed on academic disciplines such as biology, chemistry, and physics (Iqbal et al., 2021). As a result, PE instruction is often reduced to basic sport-based activities delivered through teacher-dominated methods. As noted by Ismail and Nauman (2025), the absence of student-centered pedagogies, technology-supported instruction, and multidimensional assessment limits students' opportunities to develop critical thinking, self-regulation, and lifelong health behaviors. Assessment practices remain largely summative and performance-oriented, reinforcing a narrow sport-competition focus rather than a holistic educational perspective. Similar patterns have been observed in other low-resource contexts, in contrast to countries such as Norway, where PE is compulsory and explicitly oriented toward comprehensive student development (Safvenbom et al., 2014).

Taken together, these findings underscore the urgent need for structural reform in Pakistan's PE system. While China's experience offers valuable insights into policy coherence, curriculum alignment, and instructional innovation, direct transplantation of this model would overlook Pakistan's distinct institutional, cultural, and economic realities. Gender norms, regional disparities, limited fiscal capacity, and challenges in policy implementation necessitate context-sensitive reform strategies (Fernandez, 2023). Accordingly, reform should prioritize the development of a coordinated national PE framework, strengthened teacher education and assessment literacy, and targeted investments aimed at reducing rural-urban inequalities (Deneen & Brown, 2016; Cheng & Lander, 2024).

Overall, this comparative analysis demonstrates that differences in PE teaching strategies between China and Pakistan are deeply embedded in national governance structures and socio-economic conditions. China's centralized, policy-driven system enables integrative, student-centered, and technology-supported PE instruction, whereas Pakistan's fragmented governance and structural constraints perpetuate traditional, teacher-dominated practices that limit holistic student development. Addressing these disparities will require integrated reform encompassing curriculum design, and infrastructure development, supported by culturally responsive pedagogies that strengthen the role of physical education in promoting health, equity, and educational quality.

8. Limitations

This study has several limitations. First, even though rigorous procedures were used, the study depended on available English-language materials, potentially neglecting pertinent studies published in Urdu or Chinese. Second, differences in the study methods, sample sizes, and contextual emphasis of the included studies may affect comparability. Third, the results are

interpretive and rely more on the calibre of already collected empirical data than on the gathering of new data because it is a review of the literature. Further study that combines empirical fieldwork, teacher interviews, and classroom observations will enable a greater understanding of how policy ideas are integrated into routine teaching practice.

Conclusion

The present review revealed significant distinctions between the physical education teaching strategies employed in Pakistani and Chinese secondary schools, which were mostly brought about by differences in their institutional capabilities and legal systems. For teaching physical education, China offers a well-organised, policy-aligned framework that incorporates project-based learning, technology, and student-centred techniques like the Tactical Games Approach. These approaches have a close connection to national initiatives like Healthy China 2030, which promote students' long-term health, physical competency, and general growth. Creative and inclusive teaching approaches are made possible for Chinese PE teachers by strong institutional support and ongoing professional development. However, physical education in Pakistani schools is mostly teacher-centred and lays a strong focus on drills, rote practice, and command-style instruction. Larger structural problems, such as outdated curricula, poor facilities, a lack of professional development, and physical education's low standing in respect to national education goals, are reflected in these trends. Other than the most basic evaluation norms, PE is usually regarded as an elective subject with minimal policy focus.

Taken together, the findings underscore how critical it is that Pakistan implement significant changes, particularly in the areas of updating curriculum frameworks, enhancing teacher preparation, and promoting student-centred and technologically sophisticated pedagogies. Aligning physical education with current global trends may significantly boost its instructional value and impact on students' overall development.

Disclosure statement

All the authors reported no potential conflict of interest

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