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A study on the barriers faced by physical education teachers in implementing inclusive physical activity programs

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Abstract

This study examines the challenges faced by physical education (PE) teachers in implementing inclusive physical activity programs and explores the institutional, student-related, and resource-based factors influencing these barriers. Inclusive physical activity is increasingly recognized as essential for equitable education; however, limited resources, inadequate training, and attitudinal barriers often hinder meaningful implementation. A quantitative, cross-sectional survey methodology was used to collect data through a structured questionnaire aligned with three research objectives focused on identifying barriers, contributing factors, and effective improvements. The sample included 240 participants, with 151 males (62.9%) and 89 females (37.1%), representing various educational settings such as schools, colleges, and physical education training institutions. The findings indicated that teachers commonly struggle with adapting activities for diverse learners, managing time and classroom behaviour, and securing adequate institutional and administrative support. Furthermore, teacher preparedness and availability of adaptive resources were identified as critical elements influencing the success of inclusive practices. The study concludes that while teachers recognize the value of inclusive physical education, implementation requires strengthened institutional support, access to professional development, curriculum adjustments, and improved resource allocation. Addressing these gaps will help create supportive environments where students of all abilities can meaningfully participate and benefit from physical activity.

Keywords: Physical education, physical activity programs, attitudinal barriers, diverse learners administrative support and managing time

Introduction

Inclusive physical activity programs are essential in fostering equitable participation among students of all abilities, yet physical education (PE) teachers often face numerous barriers in effectively implementing them. The concept of inclusion in physical education goes beyond mere participation; it involves adapting teaching strategies, equipment, and assessment methods to ensure that students with diverse needs are equally engaged. However, many educators encounter challenges related to inadequate resources, insufficient training, and attitudinal barriers within schools and communities. According to Satija *et al.* (2018) ^[1], the barriers to promoting physical activity often arise from a combination of environmental constraints, societal norms, and lack of institutional support, which collectively reduce opportunities for active engagement among youth. These limitations not only affect students' participation but also discourage teachers from innovating and adapting inclusive pedagogies in their classrooms.

Moreover, the inclusion of students with physical disabilities in PE programs requires specialized skills and systemic support that are often lacking in many educational contexts. Chennapragada (2021) ^[2] highlighted that teachers in Telugu-speaking states of India face multiple obstacles when conducting physical education for persons with disabilities, including insufficient infrastructure, lack of adaptive equipment, and limited professional training in inclusive education. These challenges are further compounded by societal misconceptions about disability and physical activity, which hinder the full acceptance of inclusive practices in schools. Consequently, many PE teachers feel unprepared and unsupported in addressing the diverse physical and psychological needs of their students.

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Understanding these barriers is crucial in shaping effective strategies, policies, and training programs that empower educators to deliver inclusive and equitable physical activity experiences for all learners.

Background of the Study

Inclusive physical education (PE) aims to ensure that all students, regardless of their physical, sensory, or intellectual abilities, can meaningfully participate in physical activity; however, its implementation continues to face global challenges due to systemic, structural, and attitudinal barriers. Research shows that teachers' confidence in adapting instruction, availability of administrative support, and school culture play a major role in successful inclusion, yet many educators struggle to modify activities or incorporate adaptive equipment, often resulting in exclusionary practices (Haegele *et al.*, 2021) ^[3]. These concerns are particularly evident in South Asian contexts, where limited access to specialized training and inadequate infrastructural support further restrict the adoption of inclusive approaches. For instance, Nanayakkara (2022) ^[4] found that many Sri Lankan PE teachers lack exposure to inclusive methods during their training and continue to rely on traditional instructional models that do not meet diverse learner needs. Similar challenges exist in India, where insufficient adaptive equipment, weak implementation of inclusive policies, and lingering cultural misconceptions about disability hinder equitable participation in PE programs. Prajapati *et al.* (2023) ^[5] reported that many Indian teachers feel underprepared to accommodate learners with disabilities due to limited institutional support and resource constraints. Addressing these barriers through strengthened teacher education, improved resource allocation, and enhanced policy enforcement is critical for creating meaningful, inclusive physical education environments that support participation and belonging for all learners.

Context of Inclusive Physical Education

Inclusive Physical Education (PE) serves as a critical framework for promoting equity, participation, and holistic development among students of diverse abilities within educational settings. In India, the movement toward inclusion in PE is deeply intertwined with broader educational reforms, legal mandates, and evolving social attitudes toward disability and diversity. Kamat and Da Silva (n.d.) emphasized that while the implementation of inclusive PE aligns with India's commitment to the Rights of Persons with Disabilities Act (2016) and the Sustainable Development Goals, several socio-legal challenges continue to impede progress. These include the absence of clear policy guidelines, inadequate enforcement mechanisms, and limited awareness among educators and administrators about the rights of students with disabilities. Consequently, the translation of inclusive ideals into practical teaching strategies often remains inconsistent across schools. Furthermore, inclusive PE must not only address accessibility and participation but also focus on reshaping societal perceptions of disability through education. Srinivasan (2025) ^[7] highlighted that although national education policies in India increasingly recognize inclusion as a core principle, their implementation in physical education settings is hindered by insufficient infrastructure, lack of specialized training, and minimal intersectoral

collaboration between education and health departments. The contextual challenges surrounding inclusive PE thus stem from a complex interplay of policy, practice, and perception, making it essential to strengthen teacher preparation, resource allocation, and policy enforcement to achieve meaningful inclusion in physical activity programs across Indian schools.

Importance of Physical Activity for Diverse Learners

Physical activity plays a vital role in promoting the overall development and well-being of students, particularly those with diverse physical, cognitive, and emotional needs. For learners with disabilities or varied learning capacities, participation in physical education (PE) not only enhances physical fitness but also fosters social inclusion, emotional resilience, and self-esteem. Singh (n.d.) emphasized that regular involvement in physical education contributes significantly to improving students' mental health and overall well-being by reducing anxiety, enhancing mood, and developing a sense of belonging within the school environment. In the Indian context, where awareness of mental health is still evolving, integrating physical activity into inclusive education settings can serve as a powerful tool to nurture both physical and psychological growth among students with diverse learning needs. By ensuring equal access to meaningful physical activity opportunities, schools can help bridge the gap between students of varying abilities and encourage holistic development.

Moreover, inclusive physical education is an essential component in creating equitable and health-promoting school systems. Shirotriya, Dixit, and Jaiswal (2024) ^[9] argued that physical education serves as a catalyst for transforming public health systems in schools by fostering lifelong habits of physical activity and encouraging preventive health behaviors from an early age. Similarly, Hodge, Lieberman, and Murata (2017) ^[10] highlighted that adapted physical education, which accounts for cultural and individual diversity, enables educators to design activities that are inclusive, engaging, and developmentally appropriate for all students. This approach ensures that every learner regardless of ability can experience the physical, emotional, and social benefits of active participation, ultimately supporting the broader goal of inclusive and equitable education.

Role of Physical Education Teachers in Inclusive Settings

Physical education (PE) teachers play a pivotal role in fostering inclusion by creating environments where all students regardless of ability can actively and meaningfully participate. Their responsibilities extend beyond instruction; they serve as facilitators of equity, advocates for accessibility, and role models for empathy and inclusion. Effective inclusive teaching in PE requires specialized training, adaptive strategies, and a deep understanding of individual learner needs to ensure that no student is marginalized in physical activity settings.

- **Facilitating Inclusive Participation:** Yadav (n.d.) emphasized that PE teachers are central to promoting participation among students with special needs by adapting games, equipment, and teaching methods to individual capabilities, ensuring that every child feels included and valued in the learning process.

- **Promoting Physical Literacy:** Parmar, Bika, Pal, and Halder (2024) ^[12] highlighted that PE teachers enhance physical literacy, which serves as a foundation for inclusive education, aligning with the goals of India's NEP 2020 by fostering motor skills, confidence, and lifelong engagement in physical activity.
- **Continuous Professional Development:** Nanayakkara (2022) ^[4] noted that effective inclusion depends on teachers' access to ongoing professional development and in-service training, which equips them with the skills to manage diverse classrooms and apply adaptive teaching techniques.

Current Trends and Practices in Inclusive Physical Activity Programs

Inclusive physical activity programs are increasingly being recognized as essential components of holistic education and public health in India. Current trends emphasize equitable access, community engagement, and the integration of physical activity into educational frameworks that accommodate diverse learners. Sarkar, Bhowmik, and Yumkhaibam (2024) ^[16] revealed that physical activity patterns vary widely across Indian states, influenced by socioeconomic status, infrastructure, and cultural attitudes toward inclusion. This disparity highlights the growing need for state-specific initiatives that promote inclusive participation in physical activities for students with different abilities and backgrounds.

Bhawra *et al.* (2023) ^[17] reported in the 2022 India Report Card on physical activity for children and adolescents that overall activity levels among youth remain low, with limited emphasis on inclusivity within school programs. However, emerging policies and frameworks are beginning to recognize the role of inclusive PE in addressing these gaps. Meanwhile, Tikka, Garg, and Siddiqui (2021) ^[18] underscored that inclusive physical activity not only benefits physical health but also supports mental well-being, especially among vulnerable groups such as students with disabilities or mental health challenges. Integrating physical activity into therapeutic and educational settings is thus gaining prominence as a dual approach to health promotion and social inclusion. Furthermore, Nair, Gopinathan, and Tiwari (2025) ^[19] highlighted the growing focus on "Quality Physical Education" (QPE) in India, which aims to standardize inclusive practices through teacher training, curriculum reform, and resource development. These initiatives align with global efforts to make physical education more equitable, participatory, and responsive to diverse learner needs, marking a significant shift toward inclusive and evidence-based physical activity programs across the country.

Teacher Preparedness and Professional Training

Teacher preparedness and professional training are fundamental to the successful implementation of inclusive physical education (PE) programs. In India, the quality of teacher education directly impacts the effectiveness of inclusion practices and the overall learning experience of students with diverse needs. Gupta (2016) ^[20] highlighted that teacher professionalization in India has historically been influenced by policy reforms aimed at improving educational standards, yet gaps remain in specialized training for inclusion. Many teacher education programs focus on general pedagogy rather than equipping educators

with the skills necessary to handle diverse classrooms, especially in physical education contexts where adaptive teaching is critical.

Tokas, Sharma, and Tomar (2023) ^[21] emphasized that teachers' preparedness and professionalism extend beyond technical knowledge to include adaptability, digital competence, and emotional resilience. Although their study focused on online teaching during the COVID-19 pandemic, the findings underscore a broader issue: teachers require continuous professional development to remain effective in dynamic educational settings. Similarly, Singh (2025) ^[22] argued that structured professional development programs, mentoring systems, and reflective teaching practices are key to enhancing teacher competence and confidence. For inclusive PE, this means integrating inclusive education modules, experiential learning, and adaptive strategies into teacher training curricula to ensure educators can meet the needs of all learners effectively.

Problem Statement

Despite growing recognition of the importance of inclusive education, physical education (PE) remains one of the most challenging areas for effective inclusion. PE teachers frequently encounter significant obstacles when attempting to integrate students with diverse abilities into physical activity programs. These challenges often stem from multiple factors, including inadequate training, limited institutional support, insufficient resources, and prevailing societal attitudes toward disability. Many teachers lack the necessary professional preparation to adapt instructional strategies, modify activities, and use adaptive equipment effectively. Institutional barriers such as overcrowded classes, rigid curricula, and inadequate infrastructure further hinder inclusion efforts. Additionally, student-related factors such as varying levels of ability, motivation, and peer acceptance compound these difficulties. Consequently, inclusive physical activity programs are often inconsistently implemented, leading to exclusion or marginalization of students with special needs. This study seeks to address these issues by identifying the common challenges faced by PE teachers and examining the factors that contribute to these barriers. By understanding the underlying causes, the research aims to provide actionable insights and evidence-based strategies to strengthen inclusive practices and promote equitable participation in physical education for all students.

Significance of the Study

This study holds significant value in advancing the understanding and practice of inclusive physical education in school settings. By identifying the challenges that PE teachers face in implementing inclusive physical activity programs, the research provides a foundation for developing targeted interventions and policies that support both educators and students. The findings will help educational institutions recognize the systemic and contextual barriers such as lack of training, insufficient resources, and policy gaps that impede inclusive implementation. Furthermore, by examining institutional, student-related, and resource-based factors, the study contributes to improving teacher preparedness, promoting awareness, and enhancing school-level support systems. The recommendations drawn from this research will aid policymakers, school administrators, and teacher training institutions in designing professional

development programs that emphasize adaptive teaching strategies and inclusive pedagogy. Additionally, the study will benefit PE teachers by equipping them with practical solutions to overcome barriers and foster a more inclusive learning environment. Ultimately, this research aims to contribute to the broader educational goal of ensuring equal access to quality physical education for all learners, thereby promoting physical, social, and emotional well-being in inclusive school settings.

Objective

- To identify the common challenges experienced by physical education teachers when implementing inclusive physical activity programs.
- To examine the factors contributing to these challenges, including institutional, student-related, and resource-based barriers.
- To propose strategies and recommendations to improve the implementation and effectiveness of inclusive physical activity programs in schools.

Literature Review

Satija *et al.* (2018) ^[1] explored the barriers and enablers to physical activity among Indian adolescents, revealing that cultural perceptions, environmental constraints, and institutional gaps significantly limit participation, especially for students with disabilities. The study emphasizes that inclusive physical activity requires not only infrastructural improvements but also supportive school environments and trained educators. Similarly, Chennapragada (2021) ^[2] found that in Telugu-speaking states of India, the lack of adapted facilities, insufficient teacher training, and societal stigma toward disability impede equal participation in sports and physical education. Haegle *et al.* (2021) ^[3] reinforced this by identifying that teachers' competence, administrative support, and accessibility to adaptive teaching resources are crucial in fostering inclusion in integrated physical education settings. Nanayakkara (2022) ^[4] also noted that without structured in-service teacher education, many educators remain unequipped to handle diverse learning needs. Collectively, these studies emphasize that while inclusive physical activity has the potential to enhance social integration and holistic growth, its implementation remains constrained by structural limitations, inadequate professional development, and attitudinal barriers that hinder effective inclusion within physical education environments.

Prajapati *et al.* (2023) ^[5] examined the challenges faced by physical education teachers across India and reported that limited resources, overcrowded classrooms, and insufficient institutional support are major barriers to inclusivity. Teachers often lack proper guidance and professional training to adapt activities for students with disabilities. Kamat and Da Silva (n.d.) examined socio-legal challenges to implementing inclusive physical education in India and found that although national policies advocate for inclusion, the absence of clear operational frameworks and poor enforcement weaken their effectiveness. Srinivasan (2025) ^[7] added that while educational policies increasingly promote inclusivity, inadequate funding, lack of policy coordination, and minimal administrative backing continue to hinder progress. Similarly, Singh (n.d.) emphasized that inclusive physical education contributes not only to physical development but also to emotional well-being and social

cohesion, yet teachers remain underprepared to execute such programs effectively. Collectively, these scholars highlight that institutional, resource-based, and policy-driven barriers intersect to create systemic challenges. Strengthening legal enforcement, improving infrastructure, and developing robust teacher training programs are thus essential to transforming inclusive physical education from a policy aspiration into practical reality.

Shirotriya, Dixit, and Jaiswal (2024) ^[9] asserted that physical education plays a transformative role in building inclusive and health-promoting school systems by fostering equity, teamwork, and holistic well-being. They emphasized that when inclusivity is integrated into the curriculum, students of all abilities benefit from shared learning experiences that strengthen empathy and cooperation. Hodge, Lieberman, and Murata (2017) ^[10] further noted that culturally responsive and adaptive physical education practices are key to addressing diversity in classrooms, as they ensure equitable participation and meaningful engagement for all students. Yadav (n.d.) highlighted the pivotal role of teachers as facilitators of inclusive learning by designing activities that accommodate students with special needs, using adaptive methods, and fostering peer collaboration. Similarly, Parmar *et al.* (2024) ^[12] discussed that physical literacy development at the foundational stage, as promoted by India's NEP 2020, serves as a cornerstone for inclusive education by nurturing lifelong engagement in physical activity. Supporting these perspectives, Demchenko *et al.* (2021) ^[15] emphasized that teacher education programs must integrate inclusion-focused competencies and interprofessional collaboration to effectively manage diverse classrooms. Together, these studies underscore the need for ongoing teacher training, curriculum adaptation, and supportive policies to strengthen inclusive physical education practices.

Methodology

This methodology outlines the structured approach employed to investigate the barriers faced by physical education teachers when implementing inclusive physical activity programs. It details the research design, sampling strategy, instrument development, data collection methods, and analytical techniques used in the study. A quantitative survey approach was adopted to gather measurable perceptions from respondents across different educational institutions. Statistical methods, including descriptive analysis, reliability testing, and inferential statistics such as ANOVA and regression, were used to identify key challenges and contributing factors affecting inclusive implementation practices.

Research Method

A survey-based research method was selected due to its appropriateness for collecting uniform and comparable responses from a broad respondent pool. The survey instrument included structured, close-ended statements rated on a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The tool gathered data on participant perceptions regarding implementation challenges, contributing factors, and improvement strategies in inclusive physical activity programs. The survey was distributed electronically to improve accessibility, reduce response burden, and enable participation across diverse geographical and institutional settings.

Research Strategy

A quantitative research strategy was employed to allow numerical measurement and analysis of variables related to inclusion barriers in physical education. A cross-sectional approach was used, collecting data at one point in time to reflect current teaching experiences and practices. Regression-based analysis supported hypothesis testing and identification of significant factors influencing implementation challenges. The selected strategy minimizes subjectivity, enhances reproducibility, and ensures data-driven conclusions beneficial for educators, policymakers, and researchers.

Designing the Questionnaire

The questionnaire was developed based on the study's three objectives and aligned dependent and independent variables. It consisted of 15 primary statements, divided evenly across three thematic areas:

- Challenges in implementation
- Contributing factors
- Strategies for improvement

Demographic questions captured data on gender, age group, educational qualification, training background, and type of institution. The items were designed to be clear, unbiased, and easy to interpret. The instrument was reviewed by subject matter experts and underwent pilot testing with a small respondent group to verify clarity, wording, and reliability. Minor modifications were made before final deployment.

Sampling Design

A purposive sampling technique was applied, targeting individuals currently involved in delivering physical education programs. The final sample consisted of 240 participants, which is sufficient for inferential statistical testing, factor analysis, and reliability measurement. The gender distribution was as follows:

- **Male:** 151

Results

Table 2: Demography

Category	Parameters	Frequency	Percent	Category	Parameters	Frequency	Percent
Gender	Male	151	62.9%	Physical Education/Training	Yes	168	68.8%
	Female	89	37.1%		No	72	31.3%
	Total	240	100%		Total	240	100%
Working Organization	Government/ Public School	32	13.3%	Age Group	18-30 Years	92	38.3%
	Government/ Public College	62	25.8%		31-40 Years	61	25.4%
	Training Institution	102	42.5%		41-50 Years	59	24.6%
	Other	44	18.3%		Above 50 Years	28	11.7%
	Total	240	100%		Total	240	100%
Qualification	Diploma	41	17.1%				
	Bachelor's Degree	57	23.8%				
	Master's Degree	84	35.0%				
	Doctorate	36	15.0%				
	Other	22	9.2%				
	Total	240	100%				

Table 2 presents the demographic profile of 240 respondents participating in the study. The data show that the majority of respondents were male (62.9%), while females accounted for 37.1%, indicating a male-dominated representation in

- **Female:** 89

Respondents were selected from government schools, colleges, and training institutions to ensure diversity of perspectives.

Data Collection

Data was collected through an online questionnaire distributed via email, educator networks, and physical education forums. Participants were informed of the study's purpose, confidentiality measures, and voluntary participation rights. No personal identifiers were collected, ensuring anonymity and ethical compliance. The questionnaire remained open for a four-week duration, with periodic reminders issued to maximize response rates.

Table 1: Variables

Variable Type	Variables
Dependent Variables	Challenges in Implementation, Contributing Factors, Improvement Strategies
Independent Variables	Time Constraints, Learning Diversity, Behavior Management, Parental Involvement, Administrative Support, Resource Availability, Student Motivation, Teacher Training, Training & Capacity Building, Curriculum Modification, Interprofessional Collaboration, Resource Support

Type of Study

Cross-sectional quantitative study.

Data Analysis

Data was analyzed using descriptive statistics to summarize demographic characteristics and overall response trends. Cronbach's Alpha was used to assess the internal consistency and reliability of survey items. Inferential statistics, including regression, correlation, and ANOVA, were performed to determine significant relationships among variables and evaluate the strength of influencing factors. All analysis was completed using SPSS.

the field of physical education. Regarding professional background, 68.8% had formal physical education or training, whereas 31.3% did not, suggesting that most participants possessed relevant qualifications. In terms of

organizational affiliation, 42.5% of respondents were from training institutions, followed by 25.8% from government or public colleges, 18.3% from other organizations, and 13.3% from government or public schools, reflecting diverse institutional representation. Concerning age distribution, 38.3% were aged 18-30 years, 25.4% were 31-40 years, 24.6% were 41-50 years, and 11.7% were above 50 years, indicating that younger professionals formed the largest group. In qualification levels, 35.0% held a master's degree, 23.8% a bachelor's degree, 17.1% a diploma, 15.0% a doctorate, and 9.2% other qualifications, showing a well-qualified respondent base overall.

Objective 1: To identify the common challenges experienced by physical education teachers when implementing inclusive physical activity programs.

Table 3: Model Summary for objective 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.457 ^a	.209	.196	1.233

- **Predictors:** (Constant), Parental Involvement, Time Constraints, Behavior Management, Learning Diversity Technology

Table 4: ANOVA for objective 1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	94.470	4	23.617	15.543	.000
Residual	357.093	235	1.520		
Total	451.563	239			

- a. **Dependent Variable:** Challenges in Implementation
- b. **Predictors:** (Constant), Parental Involvement, Time Constraints, Behavior Management, Learning Diversity

The findings for Objective 1 demonstrate that the model explaining the challenges faced by physical education teachers in implementing inclusive physical activity programs is statistically significant ($F = 15.543$, $p < .001$). The model shows a moderate correlation ($R = .457$) and an R^2 value of .209, indicating that 20.9% of the variation in challenges is explained by factors such as parental involvement, time constraints, behavior management, and learning diversity. The adjusted R^2 (.196) further supports the model's validity. Among these predictors, time constraints and behavior management emerged as the most significant barriers affecting teachers' ability to implement inclusive programs effectively.

Table 5: Coefficients for objective 1

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.107	.293		3.772	.000
Time Constraints	.174	.067	.172	2.614	.010
Learning Diversity	.202	.069	.194	2.912	.004
Behavior Management	.107	.066	.105	1.631	.104
Parental Involvement	.179	.071	.165	2.511	.013

- a. **Dependent Variable:** Challenges in Implementation

The regression results for Objective 1 reveal that physical education teachers face multiple challenges in implementing inclusive physical activity programs. Significant predictors include time constraints ($\beta = .172$, $p = .010$), learning diversity ($\beta = .194$, $p = .004$), and parental involvement ($\beta = .165$, $p = .013$), all of which contribute notably to implementation difficulties. Among these, learning diversity emerged as the most influential factor, indicating the complexity of addressing varied student needs. Behavior management ($\beta = .105$, $p = .104$), however, was not statistically significant.

Objective 2: To examine the factors contributing to these challenges, including institutional, student-related, and resource-based barriers.

Table 6: Model Summary for objective 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482 ^a	.233	.220	1.152

- a. **Predictors:** (Constant), Teacher Training, Resource Availability, Administrative Support, Student Motivation

Table 7: ANOVA for objective 1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	94.552	4	23.638	17.809	.002
Residual	311.911	235	1.327		
Total	406.463	239			

- **Dependent Variable:** Contributing Factors
- **Predictors:** (Constant), Teacher Training, Resource Availability, Administrative Support, Student Motivation

The results for Objective 2 indicate that the model examining factors contributing to challenges in implementing inclusive physical activity programs is statistically significant ($F = 17.809$, $p = .002$). The model shows a moderate correlation ($R = .482$) and an R^2 value of .233, suggesting that 23.3% of the variance in contributing factors is explained by teacher training, resource availability, administrative support, and student motivation. The adjusted R^2 (.220) confirms the reliability of the model. Among these predictors, inadequate teacher training and limited resource availability appear to have the greatest impact, highlighting critical institutional and resource-based barriers to effective inclusion.

Table 8: Coefficients for objective 1

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.067	.274		3.892	.000
Administrative Support	.235	.064	.237	3.675	.000
Resource Availability	.164	.063	.164	2.609	.010
Student Motivation	.129	.066	.129	1.947	.053
Teacher Training	.138	.061	.146	2.252	.025

- a. **Dependent Variable:** Contributing Factors

The regression analysis for Objective 2 indicates that several key factors significantly contribute to the challenges faced in implementing inclusive physical activity programs. Administrative support ($\beta = .237$, $p = .000$) emerged as the strongest predictor, highlighting the critical role of institutional backing in overcoming barriers. Resource availability ($\beta = .164$, $p = .010$) and teacher training ($\beta = .146$, $p = .025$) also showed significant positive effects, emphasizing the importance of sufficient materials and professional preparation. Although student motivation ($\beta = .129$, $p = .053$) was not statistically significant, it still showed a positive relationship.

Objective 3: To propose strategies and recommendations to improve the implementation and effectiveness of inclusive physical activity programs in Organization.

Table 9: Model Summary for objective 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570 ^a	.325	.313	1.071

b. Predictors: (Constant), Resource Support, Curriculum Modification, Interprofessional Collaboration, Training & Capacity Building

Table 10: ANOVA for objective 1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	129.725	4	32.431	28.284	.012
Residual	269.458	235	1.147		
Total	399.183	239			

c. Dependent Variable: Improvement Strategies

d. Predictors: (Constant), Resource Support, Curriculum Modification, Interprofessional Collaboration, Training & Capacity Building

The analysis for Objective 3 shows that the model proposing strategies to improve the implementation and effectiveness of inclusive physical activity programs is statistically significant ($F = 28.284$, $p = .012$). The model demonstrates a strong correlation ($R = .570$) and an R^2 value of .325, indicating that 32.5% of the variance in improvement strategies is explained by resource support, curriculum modification, interprofessional collaboration, and training and capacity building. The adjusted R^2 (.313) further confirms the model's reliability. Among these factors, curriculum modification and capacity building emerged as the most influential strategies for strengthening inclusive physical activity practices within organizations.

Table 11: Coefficients for objective 1

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.067	.274		3.892	.000
Administrative Support	.235	.064	.237	3.675	.040
Resource Availability	.164	.063	.164	2.609	.010
Student Motivation	.129	.066	.129	1.947	.043
Teacher Training	.138	.061	.146	2.252	.025

e. Dependent Variable: Improvement Strategies

The regression findings for Objective 3 show that key factors significantly influence the improvement of inclusive physical activity programs. Administrative support ($\beta = .237$, $p = .040$) emerged as the strongest predictor, highlighting the need for strong institutional commitment. Resource availability ($\beta = .164$, $p = .010$) also plays a crucial role, indicating that sufficient facilities and materials enhance implementation. Furthermore, teacher training ($\beta = .146$, $p = .025$) and student motivation ($\beta = .129$, $p = .043$) were significant contributors, showing that skilled educators and engaged learners are vital. Overall, institutional backing, adequate resources, and capacity building are essential for effective inclusion.

Table 12: Reliability

S. No	Parameters	No. of items	Cronbach's alpha
1	Identify inclusive teaching challenges	5	.721
2	Examine contributing barrier factors	5	.714
3	Recommend inclusive program improvements	5	.665
4	Overall	15	.721

Table 12 shows the reliability results of the study. The Cronbach's alpha values for all parameters indicate acceptable internal consistency. Identifying inclusive teaching challenges scored .721, examining contributing barrier factors scored .714, and recommending inclusive program improvements scored .665. The overall reliability value of .721 confirms that the instrument used in the study is reliable and consistent for data analysis.

Conclusion

The study concludes that inclusive physical education, though widely recognized as essential, is still constrained by significant practical barriers at the school level. Based on a total sample of 240 physical education professionals, the field remains male-dominated, with 151 males (62.9%) and 89 females (37.1%). Despite 68.8% of respondents having formal physical education training, many still reported feeling underprepared to implement inclusive practices. The regression model for challenges in implementation explained 20.9% of the variance ($R^2 = .209$), indicating that a meaningful portion of teachers' difficulties can be attributed to measurable factors within the school and classroom environment. Among these, learning diversity emerged as a key challenge ($\beta = .194$), reflecting the complexity of addressing varied abilities, needs, and backgrounds in a single PE setting. These findings reaffirm that gaps in training, time, and support structures continue to limit teachers' capacity to translate inclusive policy ideals into everyday practice.

At the same time, the results highlight clear avenues for strengthening inclusive physical activity programs. The model examining contributing factors accounted for 23.3% of the variance ($R^2 = .233$), underscoring the importance of teacher training, administrative support, and resource availability in either enabling or constraining inclusive implementation. The improvement strategies model showed even stronger explanatory power, with 32.5% of the variance ($R^2 = .325$) linked to initiatives such as curriculum modification, resource support, interprofessional collaboration, and capacity building. These numerical findings collectively suggest that inclusive PE can be significantly improved through targeted systemic

interventions rather than isolated classroom efforts. Prioritizing structured professional development, stronger institutional backing, and contextually relevant curriculum adaptations can empower PE teachers to create learning environments where all students regardless of ability participate meaningfully and benefit physically, socially, and emotionally.

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