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Structuring after-school physical education programs that are engaging, diverse & inclusive

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Abstract
With rising diversity in urban schools, developing inclusive and engaging after-school physical education (PE) programs is critical for impacting youth development. However, cultural, ability, and motivation barriers can limit participation among underserved students. This literature review aimed to identify evidence-based strategies for structuring after-school PE programs to meet the diverse needs of urban student populations. A thematic analysis methodology synthesized key findings from empirical studies published since 2010. Five themes emerged: Fostering an inclusive program culture, offering flexible and varied programming, empowering student leadership, building community connections, and providing competency-based staff training. Findings indicate that incorporating cultural elements, accommodating disabilities, soliciting student input, engaging families, and offering ongoing professional development can promote participation and positive outcomes for students of all backgrounds. After-school PE programs have immense potential to impact youth development if designed holistically using research-based inclusive practices.

Keywords: After-school programs, physical education, student engagement, diversity, inclusion

Introduction
The rising immigration rates in the United States over the last few decades have resulted in several coexisting micro-cultures. This increase in diverse cultures places educational institutions at the forefront of promoting intercultural skills. Schools serve as an interface, bringing individuals from different cultural backgrounds into a shared learning environment. This rich diversity enriches the school's culture and learning, highlighting the need for programs that prepare students to thrive in an increasingly multicultural society. As Derri *et al.* (2014) [16] argued, sports activities can be a particularly effective space for fostering positive social interactions between students from different cultural backgrounds.

After-school physical education programs (ASPPs) are among the most popular components of the Comprehensive School Physical Activity Program (CSPAP) model, offering flexibility, variety, and choice beyond the regular school day (Dauenhauer *et al.*, 2022) [15]. Well-designed ASPPs provide a fun, supportive, and safe environment for students, teachers, and the community. Moreover, research by Koç (2017) [28] suggests that participation in ASPPs can cultivate positive attitudes and behaviors toward physical activity that extend beyond the program's duration.

Despite these benefits, numerous students face barriers to participating in ASPPs due to cultural differences, low socioeconomic status, disability, or lack of interest (Pope *et al.*, 2020) [51]. This study addresses the critical need for inclusivity in ASPPs by exploring how after-school PE programs can be effectively designed to cater to student's diverse needs and interests in an urban setting.

Background
Physical education (PE) is essential in developing well-rounded individuals. Defined as "an academic subject that provides a planned, sequential K-12 standards-based program of curricula and instruction" (Perelman, 2017) [47], PE offers students a unique opportunity to acquire the knowledge, skills, and behaviours necessary for a lifetime of healthy, active living.

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Beyond motor skills development, PE fosters key attributes such as physical fitness, sportsmanship, self-efficacy, and emotional intelligence (Goodyear & Armour, 2022) [19]. At its core, PE strives to cultivate physically literate individuals equipped with "the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity" (Goodyear & Armour, 2022, p. 87) [19]. This concept of physical literacy can be seen as an essential complement to other forms of literacy, such as health or mathematics, providing individuals with the tools needed to navigate and embrace a physically active lifestyle.

This research focuses on the urban setting, which presents unique challenges to educational institutions. Issues regarding limited space, resource availability, and student diversity are prevalent in urban schools, requiring innovative and adaptable approaches to deliver effective PE programs.

Theoretical Framework
This study adopts the social-ecological model of physical activity (SEM) as its theoretical framework (Bronfenbrenner, 1979; Lee & Park, 2021) [32]. This model proposes that individual behavior is influenced by a complex interplay of factors across various ecological levels: Individual, interpersonal, organizational, community, and policy (Lee & Park, 2021) [32]. In after-school PE programs, the interpersonal level includes social support from peers, family, and community members (Mehtälä et al., 2014) [45]. This level also encompasses the roles of stakeholders such as school administrators, teachers, and program leaders in fostering a positive and inclusive environment. The organizational level focuses on program structure, leadership, and resources, including accessibility of facilities and equipment (Pierce et al., 2010). The community level considers the availability of physical activity opportunities within the surrounding neighbourhoods and the influence of broader social norms and values (Lee & Park, 2021) [32]. Finally, the policy level examines the impact of federal, state, and local policies on the availability and quality of after-school PE programs (Mehtälä et al., 2014) [45].

By applying the SEM, this study aims to gain a holistic understanding of the factors that influence student participation and engagement in after-school PE programs within the specific context of urban settings. This understanding will inform the development and implementation of effective programs that cater to all students' diverse needs and backgrounds, ensuring access to physical activity and its associated health and well-being benefits.

Purpose and Significance
This study aims to provide an evidence-based assessment of existing literature on efficient strategies for structuring after-school PE programs. The significance of this study lies in its potential to inform the development and improvement of after-school PE programs that can promote physical activity and support the well-being and health of all students.

Scope
The scope of this study is limited to after-school PE programs for K-12 students (5-18 years old) in urban settings in North America.

Literature Review
Schools help students attain the recommended activity levels by leading inclusive and engaging physical education in after-school activities (Chung et al., 2023) [13].

Understanding Inclusion, Diversity, and Engagement
Inclusion
Inclusion means creating an environment where all students can participate in school activities and feel appreciated for their contributions. However, policymaking has always limited disabled children, hampering their involvement in social and economic life (Lafee, 2011; Kurkova et al., 2010) [30, 29]. Inclusive physical education programs include students with disabilities in the activities (Haney et al., 2014) [22]. Inclusion efforts can include tweaking teaching strategies, equipment, and the environment to meet the needs of all students (Haney et al., 2014) [22]. Like employment and public transit, disabled students can have the same roles and experiences as their peers in these activities.

Diversity
High levels of multiculturalism and diversity are evident in physical education classes. Culturally responsive pedagogy extends beyond the classroom and into physical education programs outside primary and secondary educational settings. Incorporating diversity into physical education programs aligns with the No Child Left behind (NCLB) Act, which creates equal access to the benefits of physical activity for equal achievement across all students (Adler-Greene, 2019) [1]. By this token, ASPPs further promote cultural understanding and reduce prejudice by discrimination.

Engagement
After-school programs extend beyond the day and aim to make students more active (Caillaud et al., 2022; McQuinn et al., 2022a) [43]. Engaging programs are supposed to be fun, interesting, and motivating for students. The CDC suggests implementing competitive and non-competitive physical activities in after-school programs (Bentil et al., 2017) [3]. A wide range of after-school activities makes it easier for students to find an activity that's a good fit for them.

Program Culture
A positive program culture can help to create a safe and inclusive environment where students feel comfortable participating in physical activities (Dewi, 2020) [17]. This can help to increase student engagement and motivation. After-school physical education programs must establish explicit participation and behaviour expectations (McQuinn et al., 2022b; Wallace et al., 2022) [43, 61]. ASPPs help build a sense of community that is a more welcoming and supportive environment for everyone. A program culture aims at purposeful motor activities that optimize students' health and working capacity (Poulos & Kulinna, 2022) [52].

After-school program stakeholders have struggled to align their values and goals with the schools (Carter-Thuillier et al., 2023; Simpkins et al., 2017) [7, 58]. A positive program culture fosters a sense of belonging and respect and enhances physical activity engagement (Maher et al., 2020) [34]. The case study presented in the article "Navigating Two Cultures: An Investigation of Cultures of a Responsibility-Based Physical Activity Program and School" by Lee and Martinek (2009) [31]. The Project Effort program explores the school's mission and vision and how it aligns with students' values and behaviour towards the program. Project Effort is an after-school physical activity program to extend learning for

underserved children. The program matched all participants with university mentors who visited the children's schools every week and helped participants focus on the values and skills taught in the program. In the study, five elementary schools had at least one full semester of participation.

The program's findings uncovered that the participants and the school had different attitudes towards the program. Although explicitly similar values were emphasized between Project Effort and the school, participants suggested these values were distorted. For example, the empowerment values in Project Effort, such as respect and responsibility, were perceived as a disciplined approach in school. Participants' perceptions of cultural values functioned as a barrier to transferring value to the students.

Flexible Programming

According to a national survey by Aspen Institute, Asian American students were highly likely to say that the school program did not offer what they wanted or liked. Among private schools, 25% of blacks reported not feeling welcome in school teams, and 40% of Hispanics (Rentner & Burns, 2023) [53]. Retaining and engaging diverse student populations requires the after-school programs to be adaptable and flexible. Flexible programming involves programs offering various sports and activities that appeal to various abilities and interests (Gutuskey *et al.*, 2016; Guo & Peay, 2021) [21, 20]. While offering many sporting activities, ASPPs must ensure that they give all students equal decision-making opportunities (Ihrig *et al.*, 2022; Woods *et al.*, 2022) [25, 63]. The programs must be adaptable to fully meet all students' needs regardless of their schedules or personal commitments like work and family responsibilities.

Besides a wide range of sporting activities, flexible after-school programs also give students a voice. In a study by Akiva, Cortina, and Smith (2014) [2], researchers examined the prevalence and correlates of youth decision-making practices in a sample of 979 youth attending 63 multipurpose after-school programs. Involving youth in program decision-making is a promising strategy to motivate them to attend programs. The case study unearthed that power sharing in the youth is commonplace. Furthermore, the linear model used affirmed the positive association between getting the youth to attend programs and decision-making practices. The authors noted that problem-solving and empathy were more pronounced in older youth.

Regarding this case study's conclusion, student input is one of the aspects that will yield a positive response and increase student engagement and outcomes. The study also suggested that after-school physical education programs should tailor student input practices to the needs and interests of different age groups and program types.

Student Leadership and Empowerment

Through the empowerment theory, Zimmerman (2017) suggests a conceptual framework that helps understand how the youth can develop confidence, skills, and behavioural strategies to self-identify goals. Giving students the responsibility and opportunities for leadership and input can be one valuable approach to retaining and engaging diverse student populations in the after-school programs of physical education (Kim, 2022) [27]. By inviting all students to assist in planning and leading program activities, these programs can assist in building some sense of investment and ownership amongst the program participants (Christensen *et al.*, 2023) [12]. The programs could likewise benefit from giving students

leadership opportunities, especially those from marginalized groups or underrepresented communities (McMullen *et al.*, 2022a; McMullen *et al.*, 2022b) [42]. A well-designed program integrates confidence building, enhances cognitive skills, and engages the youth in social change. This way, students have increased confidence and some sense of say and belonging.

To illustrate how student leadership and empowerment influence the design and implementation of after-school physical education programs, a relevant case study is the Youth Empowerment Solutions (YES) program evaluated by Zimmerman *et al.* (2017). Through the study of 367 youth from 13 urban and suburban middle schools, the authors employed a control group to test whether participants with more program components benefit positively compared to those without. From the controlled demographics, the study found that students who received support from program components showed higher psychological empowerment, such as leadership, community engagement, and resource mobilization. The inverse occurred to the less empowered group. The YES ASPP engages the youth in promoting healthy development. The YES curriculum, therefore, has broad applicability to youth after-school PE programs. A program design and components can be adapted to varying age groups, communities, and cultures.

Community Connections

Connecting with community organizations, resources, and families can enhance program quality, cultural relevance, participation, and outcomes. Efficient after-school physical education programs should finally aim toward building connections with the available community organizations and resources (Berryhill *et al.*, 2020) [4]. This strategy might involve partnering with community groups like the local teams of different sporting activities. The strategy might also involve engaging with the caregivers and families to build support for these programs (Keengwe, 2017) [26]. A program could likewise benefit from incorporating cultural and historical components. Incorporating cultural and historical components can be helpful when it comes to creating some sense of connection as well as relevance with students.

This section will present the role of community connections in Girls on the Run (GOTR) as a case study example. GOTR is an after-school physical activity-based positive youth development program that relies on community partnerships and engagement at multiple levels (Weiss *et al.*, 2019) [62]. The case study will summarize key examples of community connections in GOTR and their impacts on program implementation and outcomes based on the focus group and survey data presented by Weiss *et al.* (2019) [62].

A key component of GOTR is its reliance on volunteers and community members as team coaches (Weiss *et al.*, 2019) [62]. The relationship between the coaches and participants bred positive responses as adult role models in the community for the students. Partnerships between local sponsors, organizations, and business people ensured the program's stability. Meanwhile, home families were called upon to support the students and participate in the 5k event. Weiss *et al.* (2019) [62] evaluation of the program unveiled a positive impact on the development and physical activity of the participating girls.

According to the focus groups with coaches, caregivers, and girls, the community impact project was a highlight of the GOTR experience. Girls chose projects to benefit causes like animals, the environment, schools, and individuals dealing with illness/injury. For many of the girls, it was reported that

they took the program positively, which helped them develop empathy and introduced them to social justice. Community connections can, therefore, enhance outcomes for youth in after-school physical education programs. As depicted by GOTR, a well-purposed program means leveraging community assets and resources, which is essential in allowing the youth to learn and take action.

Training Instructors

Our inductive analysis brought forth the theme of training instructors in after-school PE programs. In this subsection, we present a case study from the article "Relationship between Motivation and Learning in Physical Education and After-School Physical Activity" by Chen *et al.* (2014). This article documents how professional development (PD) improves student physical activity program success.

The PD program education focused on providing training in authentic contexts through coaching, mentoring, and reflection. The program took place across 12 weeks with ten elementary school PE instructors in the U.S. It involved an initial 2-day workshop focused on the program goals, theoretical framework, and curriculum materials related to motivation and learning strategies. Instructors received biweekly classes and participated in monthly meetings with peers. Quantitative data were collected through systematic observations of the instructors' use of promotion strategies and students' moderate-to-vigorous physical activity (MVPA) during PE classes multiple times. Qualitative data were also gathered through interviews with instructors about their perceptions of the situated PD program. As a result, student MVPA also increased from 37% at baseline to 52% post-intervention. The in-class coaching and collaborations were reported to be very valuable for improving teachers' abilities to motivate students.

This case study demonstrates how comprehensive PD programs that provide context-specific training through mentoring and peer collaboration can enhance after-school PE instructors' practices. Hwang *et al.* (2020) seconded that investing in high-quality, situated training opportunities is key for after-school PE program effectiveness.

Methodology
1 Introduction
For this qualitative research, "physical activity" or PA refers to any body movement requiring greater energy expenditure from students than at rest (Saenz, 2021). "Physical education" or PE refers to the program set aside for students' physical activity, in our case, after-school physical education programs.

2 Literature Search
A computer-based search was conducted in May 2023. The systematic search was conducted on Google Scholar, ERIC, and EBSCO host databases. Several search key terms were modified to align with the research question and overall perspective of the research title. Table A1 in the Appendix outlines the number of hits from the three databases. Search terms and keywords used:

- "After-school physical education" and "engaging" and "diverse" and "inclusive"
- "After-school physical education" and "engagement" And "diversity" and "inclusion"
- "After-school physical education programs" and "engagement strategies"
- "After-school physical education programs" and "diversity and inclusion"
- "After-school physical education programs" and "best practices"
- "Physical education" or "PE" and "theoretical framework" or "social-ecological model" or "physical activity"
- "Purpose" or "significance" or "rationale" or "objectives" and "after-school" or "diverse student populations"
- "Inclusion" or "inclusive physical education" and "students with disabilities" or "accommodating needs and abilities"
- "Diversity" or "cultural diversity" and "culturally responsive pedagogy" or "cultural awareness and appreciation"
- "engaging" or "student engagement and motivation" and "fun" or "interest" or "choice" or "variety" or "feedback"

3. Source Selection
The number of sources retrieved from each database is shown (see Table A1 in Appendix). The resources from the three databases were sourced based on the following inclusion and exclusion criteria. The inclusion criteria aligned with this study's research question and theoretical framework. Advanced filters applied to the search criteria include full text available and relevant subject areas, i.e., health, sports, education, and peer-reviewed. The sources were screened and chosen based on the following inclusion criteria: 1) The source must be published after 2010. 2) The source had to be written in English and focused on after-school physical education programs for K-12 students. 3) Select source was published by respected health, sports, and education authors in reputable journals. 4) The source included qualitative and or quantitative methods in their understudy. 5) The source provided empirical evidence or theoretical insights on the strategies or factors that influence the design of after-school programs. 6) The source was highly relevant based on the abstract, title, keywords, and references.

The inclusion criteria for sources in this literature review were chosen to ensure relevance and reliability. The fields of education and health are ever-evolving, so it was important to select up-to-date and trustworthy sources. Exclusion criteria were also applied, including 1) Ethical considerations such as excluding minors without the capacity to give informed consent. 2) Sources not published in peer-reviewed journals or books. 3) Sources written in languages other than English were not included.

4. Data Analysis
Our analysis method allows us to focus on concepts and experiences instead of statistics in a quantitative analysis (Clarke & Braun, 2017) [14]. We chose the athematic analysis approach because it allowed our selection of sources based on philosophical and conceptual foundations that align with our research. The analysis first involved the selection of pertinent sources from the three databases mentioned above: Google Scholar, ERIC, and EBSCO host. A total of 54 sources were reviewed and coded. We used NVIVO software to organize the codes and excerpts from each article. We took preliminary broad, high-level overviews, codes, and notes on initial impressions and observations to familiarize ourselves with the data. This step was repeated several times to allow us to refine the selected data and identify descriptive codes, themes, and patterns that align with ASPPs. Four overarching themes emerged from this process that informed our deductive coding approach. For example, when a source mentioned the

importance of offering a variety of activities that appeal to different interests and preferences, we assigned the code "flexible programming" to that text passage, and the analysis software put together the total references on the themes.

Table 1: Code references

Theme	Codes	References
Program culture	Values, norms, expectations	12
Flexible programming	Varied activities, student input	9
Community Connections	Partnerships, family	23
Student leadership and empowerment	Ownership, decision-making	11
Instructor training	Build competencies, Collaboration	17

To validate these themes, two researchers independently coded and triangulated a subset of three articles between them and achieved an inter-rate of 89%, indicating strong agreement. All coded excerpts were reviewed to articulate the main themes from the identified sub-themes.

We utilized inductive and deductive coding approaches, and from our sources, we generated codes based on our initial themes: Program culture, flexible programming, student leadership and empowerment, and community connections. We coded the data by identifying and labeling passages of text that exemplified the same theoretical or descriptive idea. This theory-driven approach (deductive coding) helped us generate codes that relate to the research question and are specific to our theoretical framework. On the other hand, the inductive or data-driven approach we employed left open the possibility for new codes based solely on the content of the data we found, free from any preconceived theories or frameworks. The themes we decided upon were derived from the grouped codes that shared a common idea. However, the inductive approach revealed a new theme from the coding data. One of the emerging themes not pointed out in our preliminary analysis is training instructors.

Results
The following part presents and discusses each theme in detail, using evidence and examples from the sources and case studies reviewed.

1. Program Culture
A strong culture in ASPPs is characterized by shared values, beliefs, norms, and expectations that participants have against each other. Inclusion, equity, and diversity in a program culture could be one efficient strategy for retaining and engaging diverse student populations (Saavedra *et al.*, 2018). One way of achieving this might include incorporating cultural elements or components into different program activities like dance or music from various cultures (Dauenhauer *et al.*, 2022) [15]. It is worth noting that the main goal should revolve around promoting an inclusive and welcoming environment for everyone, even as all these cultural components are incorporated (Christensen *et al.*, 2023 [12]; Pinkerton & Martinek, 2023) [50]. The after-school programs must address notable issues of marginalization and inequality. These programs can address such problems by accommodating students with disabilities. Exercises are also formulated to offer opportunities for all students, including those from marginalized or underrepresented community backgrounds.

This subsection will present and discuss the case of Project Effort, presented by Lee and Martinek (2009) [31]. In the

study, all participants are matched with university mentors who visit the children's schools every week and help participants focus on the values and skills taught in the program. Renowned for its strong culture, Hellison's Personal and Social Responsibility Model transcends every facet of the program.

Table 2: Key characteristics of a positive program culture

Characteristics	Description
Values-based	The program is based on a strong theoretical model emphasizing five goals: Respect, participation, self-direction, leadership, and transfer.
Mentoring	The program matches participants with university mentors who visit their schools weekly and provide guidance and support.
Community	The program creates a sense of community among participants and staff, sharing common experiences and goals.
Expectations	The program sets clear and consistent expectations for participation and behaviour, such as following rules, being on time, and wearing appropriate attire.
Feedback	The program provides frequent and constructive feedback to participants, such as praise, encouragement, and suggestions for improvement.

2. Flexible Programming
Flexible programming can help increase student engagement and motivation and cater to diverse needs and abilities (Guo & Peay, 2021) [20]. A flexible program characteristically shares two essential values. 1) Various activities allow students to choose activities that appeal to their preferences and goals. 2) The program provides opportunities for individualized instruction and feedback (Akiva *et al.*, 2014) [2]. An institution cannot and should not discourage a student's relationship with exercise, physical activity, or any form of PE program. The decision is important, especially in middle school, where students' physicality is important as they mature into young adults. Historically, most institutions have been culprits to a one-size-fits-all approach concerning PE. Students played the same sports and indulged in the same activities regardless of their abilities, interests, skill levels, and competitive nature (P. Rigby *et al.*, 2020; Siramaneerat & Chaowilai, 2020) [46, 59]. Physical activity classes should be distinct, speak to students' unique interests and skill levels, and encourage healthy lifestyles. In addition to offering a variety of activities, allowing students to choose their activities and providing individualized instruction opportunities are also modes of flexibility in PE (Santos *et al.*, 2023) [56]. A flexible physical education program should be inclusive and adaptable, ensuring no children are left behind, regardless of their abilities.

At the school level, this includes involving students with disabilities in planning, implementing, and evaluating physical education and physical activity programs. Schools with facilities and equipment can meet all students' needs and abilities. Instructors were also open to encouraging students from marginalized communities or disabilities to take on leadership roles. This can also help students with disabilities develop their physical, social, emotional, cognitive, and academic skills, improve their health outcomes, enhance their self-esteem, increase their sense of belonging, build friendships, and have fun. Drawing on insights from Akiva *et al.*'s (2014) [2] study, 'Involving Youth in Program Decision-Making,' presented as part of their research on ASPPs, we can see how flexible programming fosters increased expression, motivation, and empathy among participants. From the study,

you can deduce that involving the youth in decision-making leads to more expression, motivation, and empathy among participants.

Table 3: Key elements of a flexible after-school program.

Characteristic	Description
Variety of activities	Students have different interests and preferences, and the number of activities in and after-school programs should reflect this.
Student choice	Giving students the autonomy to choose an activity that suits them.
Individualized instruction	A flexible ASPP provides multiple channels for feedback and individualized instruction.
Inclusivity	Ensures all students are engaged and challenged regardless of their ability or background.
Student involvement	Involve students in the planning, implementing, and evaluating the activities and the program as a whole
Communication with families	Communicate with families about the benefits and opportunities of flexible after-school programs.

However, the author does put forth the limitation that relinquishing decision-making to youth can only work on high-school students and higher and not younger.

Additionally, program leaders must solicit input and feedback from families and students (Petrishchev *et al.*, 2021; Santos *et al.*, 2023) [48, 56]. This process might involve conducting surveys and focus groups while incorporating student feedback into the program assessment and improvement (Chernova & Romm, 2022; Hunter, 2022) [11]. The programs should likewise strive to create partnerships with the locally available community organizations while optimizing the use of community resources like community centers of the local teams' sports (Castelli *et al.*, 2022) [8]. All these things should be done as the program leaders target to increase the programming options available to their diverse student populations.

3. Student Leadership and Empowerment
The reviewed literature provided examples of how allowing students to take ownership and lead program activities can enhance outcomes. To illustrate this, table 4 below summarizes key characteristics and outcomes from the Youth Empowerment Solutions (YES) program evaluated by Zimmerman *et al.* (2017). YES applies empowerment theory and engages middle school students in assessing community needs, planning projects, building partnerships, and implementing community change initiatives.

Table 4: Key strategies for student leadership

Characteristic	Description
Leadership roles	Students take on meaningful leadership roles in identifying issues, assessing community needs, planning/designing projects, building intergenerational partnerships, and implementing community change initiatives.
Skill building	The YES curriculum focuses on building leadership, problem-solving, teamwork, and communication skills.
Student-driven	Students drive the process by identifying issues they care about, designing projects to address community needs, and putting their plans into action.

The YES program evaluation demonstrates how incorporating meaningful student leadership roles, skill building, and student-driven project planning can enhance psychological empowerment. The increased empowerment translated to positive attitudes, behaviours, and developmental outcomes. After-school physical education programs should consider integrating student leadership and empowerment opportunities.

4. Community Connections
The literature we analyzed depicted how schools can leverage community assets to promote the program's mission and vision. To develop effective partnerships, schools should have ongoing engagement with key community stakeholders that can provide support, expertise, and resources for after-school programs (Marttinen *et al.*, 2021a; Marttinen *et al.*, 2021b) [40]. One strategy is creating community advisory boards with representatives from organizations like faith-based groups, health providers, businesses, and youth groups (Lopes *et al.*,

2023) [33]. These boards are categorically placed to ensure the program is responsive to community needs and interests. For instance, they may recommend incorporating traditional cultural games and dances (Sjogren & Melton, 2021; Marttinen *et al.*, 2019b) [38].

Schools can also increase family and caregiver involvement in promoting physical activity (Chandler *et al.*, 2019). Strategies include communicating through social media, conferences, and newsletters to encourage participation in after-school programs (Marttinen, 2019; Martinen *et al.*, 2019a) [38]. Providing families with physical activity resources and program recommendations can help generate support (Santos *et al.*, 2023) [56]. Inviting family input through surveys or focus groups and engaging families in program implementation and observation makes them feel invested in the programs (Burns *et al.*, 2022; Simcock & Lee, 2022) [5, 57]. Organizing family fitness events further connects families to after-school physical activity initiatives.

Table 5: Key evidence-based strategies for leveraging community assets and connections

Strategies	Description
Community advisory boards	Form boards with community organization representatives to advise on programs
Communication outreach	Local community social media channels, newsletters, and conferences. To summon and or to inform families about activities.
Providing resources	Give families physical activity guides and community program recommendations
Family input	Solicit family feedback through surveys and focus groups
Family involvement	Engage families in program implementation and observation
Family events	Organize fitness events for families to participate together

5. Training Instructors
Chen *et al.* (2014) [10] highlights core components of training programs that build critical competencies to promote student physical activity and nutrition. The author proposes a conceptual framework for the professional development of ASPP staff focused on the 5Ms - Mission, Motivate, Manage, Monitor, and Maximize. Chen *et al.* (2014) [10] recognized that resources can be limited, emphasizing competency-based training. Staff should go through management strategies and policy understanding to promote good nutrition and PE best practices.

Additionally, Chen *et al.* (2014) [10] evaluated a situated professional development model for elementary school physical education teachers grounded in motivation and learning theory. The 12-week training program involved an initial workshop, biweekly in-class coaching, monthly collaborations, and reflective journals. As a result of this comprehensive situated training, teachers increased their motivation promotion strategies, translating to heightened student physical activity during PE.

Table 6: Characteristics of the Situated Professional Development Model.

Characteristic	Description
Theoretical grounding	Based on motivation and learning theories
Initial workshop	A 2-day intensive workshop on goals, curriculum, strategies
Ongoing coaching	Biweekly in-class modelling and feedback from experts
Peer collaboration	Monthly meetings to share experiences and lesson ideas
Reflection	Weekly reflective journals on strategy use and effects
Context-specific	Tailored training to each teacher's classroom and students

From the program, the metrics depicted measurable improvements in teacher practices and student outcomes. These findings align with the framework emphasizing competency-based, experiential training for after-school staff. Ongoing, context-specific PD is key for ensuring instructors are equipped to meet program goals for youth wellness.

Conclusion
This research examined how after-school physical education programs offer vital opportunities for kids to engage and cultivate lifelong habits that promote health and wellness. A well-rounded approach caters better to the interests of a diverse student population. As enumerated in our analysis, establishing a positive program culture of engagement, inclusion, and diversity can increase participation and motivation. Accomplishing this involves setting expectations, building community, and addressing marginalization. Focus on boosting engagement through flexible programs with diverse activities and student input accommodating various interests, skills, and abilities. We deduced that student leadership and empowerment opportunities allow youth to take ownership and drive a program, leading to enhanced skills and efficacy. Community partnerships and connections leverage assets to provide resources, relevance, and family involvement. Lastly, high-quality professional development was seen as a valuable asset to equip instructors to motivate and engage all students through experiential learning.

Our research contributes to the existing literature by synthesizing evidence on designing inclusive after-school programs. The findings provide practical implications for developing programs that engage diverse youth populations in lifelong physical activity. Some key recommendations from our research-based study are that schools should ensure that a program's mission and vision include promoting an inclusive culture, empathy, and understanding. Secondly, students with disabilities and the underrepresented should be provided for equally. To accommodate different skill gaps, interests, and abilities, the physical activities in the programs should be varied.

In the same vein, feedback is crucial in building a sound AFPP. Soliciting student input and feedback allows designers to get participants' thoughts on a program. Students should also have leadership roles in planning, organizing, and program activities. Program developers can include management and administrative responsibility to student-led committees to get the most value. At the same time, the school can provide mentorship and training to better the decision-making student-led arm of the program. Eventually, creating partnerships with community organizations and resources enhances the strength and participation of the program. Altogether, key directions for future research include evaluating after-school program impacts on outcomes like physical activity, fitness, and social-emotional learning using rigorous mixed methods.

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