

REVIEW ARTICLE

Community Innovations in Physical Activity for Women and Girls: A scoping review

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Abstract

Community-led programmes are increasingly recognised as effective approaches to promote physical activity among women and girls. Evidence on how these programmes are informed by cultural context and local knowledge remains fragmented. This scoping review aimed to identify and synthesise evidence on culturally grounded, community-led physical activity programmes for women and girls embedded within community settings. We conducted the review in accordance with the Joanna Briggs Institute methodology and the Arksey and O'Malley framework. The findings were reported using the PRISMA-ScR guidelines. The literature search included Web of Science, Scopus, PubMed, and CINAHL, covering studies from database inception to August 2025, and was supplemented by a forward citation search. We included peer-reviewed articles on community-led physical activity programmes targeting women and girls across their lifespan. Eight studies were included, mapped, and thematically synthesised, yielding three models of community-led programmes, differentiated by programme design and community engagement characteristics. Our findings highlight that varying levels of community involvement can be effective depending on the context, with culturally grounded and gender-sensitive approaches demonstrating the potential to enhance participation, social inclusion, and local ownership. These findings underscore the importance of culturally informed and community-responsive designs in physical activity initiatives for women and girls.

Keywords:

physical activity, gender equality, community-led programmes, cultural responsiveness, local knowledge

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Introduction

Women and girls consistently participate less in physical activity than men and boys, highlighting a persistent gender inequality in the participation of physical activity. Globally, levels of physical inactivity have increased from 23.4% in 2000 to 31.3% in 2022, with 34.0% of women not meeting recommended physical activity levels compared with 29.9% of men (Strain et al., 2024). This gender difference is also evident among children and adolescents.

Guthold et al. (2020) reported that 84.7% of girls aged 11–17 years were physically inactive, compared with 77.6% of boys of the same age.

Regular physical activity is widely recognised for improving both physical and psychological health. In adults, physical activity reduces the risk of cardiovascular disease, type 2 diabetes, and some cancers, while also improving mental health by reducing anxiety and depression, and enhancing cognitive function and sleep (Centres for Disease Control and Preven-

tion, 2025). Similarly, children and adolescents experience improved physical fitness, cardiometabolic health, bone health, improved academic performance, and reduced symptoms of depression (Li et al., 2023; Ni et al., 2025).

Women and girls face unique challenges to participating in physical activity, reflecting a complex interaction of individual, social, and environmental factors. Individual factors include lack of time, motivation, and interest in physical activity (Batalha et al., 2025). Social factors include family obligations, lack of social support, and gender norms that prioritise house-keeping and childcare (Amiri-Farahani et al., 2021). Environmental factors include safety concerns, inadequate infrastructure, and limited accessibility (Batalha et al., 2025).

Traditional physical activity programmes usually have limited success in increasing participation because they often fail to account for the realities of women and girls. Top-down interventions that focus solely on health and individual behaviour change may not achieve long-term success because they ignore structural determinants (Wallerstein & Duran, 2010). Hence, it is necessary to shift towards more holistic and context-sensitive approaches. The community is a potential setting for interventions as it leverages local social networks and support, which are key predictors of physical activity adherence for women (Keane et al., 2020).

Community-based programmes have shown promise in addressing some of the barriers faced and sustaining participation by adapting social cohesion (Amiri-Farahani et al., 2021). These programmes involve participatory approaches and include women in the planning and implementation stages (Cargo & Mercer, 2008). Despite this potential, the existing evidence base remains fragmented. Farahani et al. (2015) previously concluded that there was insufficient evidence to suggest that community-level interventions effectively increase physical activity levels

among women and called for a more comprehensive examination of intervention features that ensure sustainability. While more recent reviews have emerged, they have often focused on specific domains, such as health outcomes or embodied sport experiences (Pedersen & King, 2023; Vidaurreta et al., 2025), without specifically synthesising how community-led governance and local cultural knowledge are integrated into programme design.

Community-led programmes refer to initiatives in which community members or local organisations take the primary role in identifying needs, making decisions, planning activities, and implementing solutions to improve social, economic, or environmental conditions (Jarvis, 2015; Nel, 2020; Moore et al., 2025). This definition distinguishes community-led initiatives from community-based programmes delivered in community settings but primarily designed or governed by external organisations.

Studies were classified as community-led when programme descriptions indicated active community involvement in leadership or decision-making processes. Specifically, indicators of community-led programmes included community participation in programme initiation, shared or community-led decision-making, involvement in design and delivery, and evidence of local ownership or capacity-building. We acknowledge that there may be conceptual overlap with related terms such as community-based programmes; however, this review distinguishes community-led initiatives based on the degree of community leadership and control.

Building on this understanding of community-led programmes, this scoping review examined innovations in community-based physical activity for women and girls. Specifically, it focused on how these initiatives were shaped by cultural context and local community knowledge. A scoping review approach was used to map the range and characteristics of initiatives reported in the literature. Our research questions are:

1. How are community-led programmes conducted to promote participation in physical activity for women and girls?
2. In what ways do community-led programmes demonstrate gender sensitivity to address barriers specific to women's and girls' physical activity participation?
3. How do community-led physical activity programmes for women and girls incorporate local knowledge, practices, or cultural understanding in their design and implementation?
4. What factors contribute to or hinder the sustainability of community-led physical activity programmes for women and girls?
5. Beyond physical activity levels, what other physical, psychological, social, and academic outcomes are measured and reported as effective in community-led physical activity programmes for women and girls?

Methods and Materials

The scoping review was conducted in line with the Joanna Briggs Institute Guidelines for scoping reviews (Peters et al., 2020) and the five-stage framework of Arksey and O'Malley (2005). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) was used to report the review process (Tricco et al., 2018).

Identifying relevant studies

To identify relevant studies for our scoping review, we conducted structured searches across four major interdisciplinary and health science databases: Web of Science, Scopus, PubMed, and CINAHL. These databases were selected for their broad coverage of public health, PA, and community-based research (Falagas et al., 2008). The search was limited to peer-reviewed studies published in English since the inception of the databases. Additionally, forward citation searching was performed for all included studies using citation indices in Web of Science and Scopus. This step was conducted to identify additional studies that may not have been captured

through database searching alone. The following search terms were used, applied to the article topic field: (women OR woman OR girl* OR female* OR gender) AND sport* AND (community OR communities OR local* OR neighbourhood* OR neighbourhood* OR grassroots) AND (program* OR programme* OR initiative*). A uniform search strategy was applied across all databases, with minor adaptations to accommodate database-specific syntax (e.g., truncation symbols and field tags), while maintaining consistency in the core keywords and their Boolean structure.

Study selection

In line with the Joanna Briggs Institute methodology for scoping reviews, the eligibility was based on the Population, Concept, Context criteria. The population are women and girls across the lifespan. The concept is community innovations in physical activity (including sport, leisure-time physical activity, and exercise). Innovations include (but are not limited to) technological, process, or structural approaches. The context is community settings. The physical activity programmes must be organised in community-based settings (neighbourhoods, grassroots organisations, local clubs, informal groups) and be non-institutional and non-professionalised at the delivery level. This review included studies that implemented physical activity programmes initiated at the community or grassroots level to increase physical activity among women and girls. Studies were excluded if programmes included all genders, were managed by international or educational institutions, focused on sport performance, or had participants who were not programme recipients. We included qualitative, quantitative, or mixed-methods studies. Reviews, book chapters, abstracts, and conference proceedings were excluded.

The search was performed between 2025, August 1 and 16. All electronic search results ($n = 2,983$) were imported into Rayyan, and duplicates were removed

($n = 1221$). Two independent reviewers (LJY and LMY) screened the titles and abstracts in Rayyan. Disagreements were resolved through discussion, and if consensus could not be reached, a third reviewer (YYC or SK) was consulted. Full texts of potentially relevant studies were retrieved and assessed independently by

two reviewers (LJY and LMY). Disagreements at the full-text screening stage were also resolved through discussion with consultation from a third reviewer (YYC or SK) when necessary. The number of articles at each screening stage is shown in Figure 1.

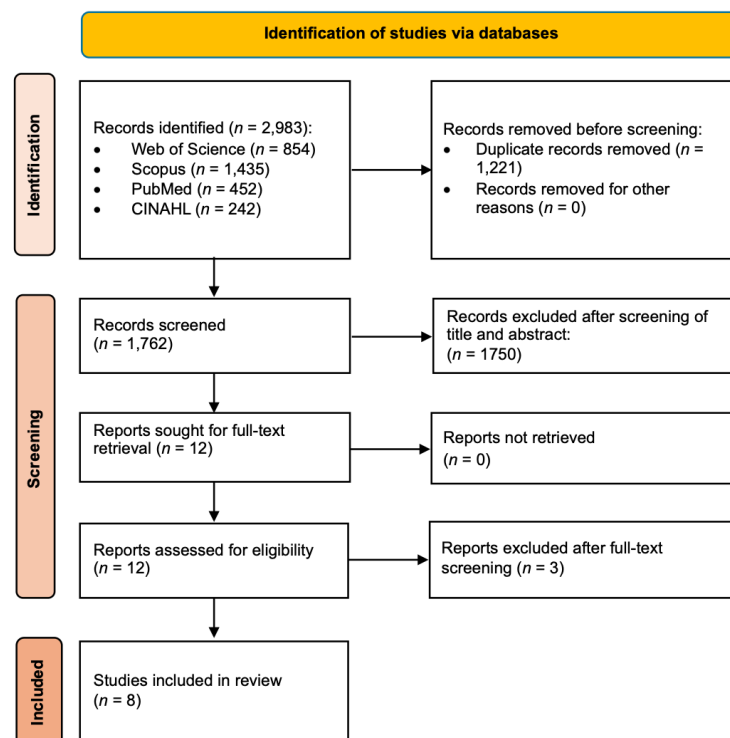


Figure 1. PRISMA flow diagram

Results

Selection of Evidence

An overview of these studies and their corresponding programmes is provided in Table 1.

The evidence base is relatively recent, with six of the eight studies published in or after 2020, indicating an increasing scholarly focus on this topic. The studies originated from diverse geographical contexts, namely Ireland, the United Kingdom, Greece, the United States, New Zealand, Iran, Tonga, and Samoa. Six of the eight studies reported funding sources, most commonly from national research councils or sport-related agencies such as the Irish Research Council, Sport England and Netball Australia. Methodologically, the

studies employed a range of designs, including quasi-experimental, mixed-method, qualitative, and participatory approaches. Outcome measures primarily focused on physical activity participation, with secondary outcomes including physical literacy and psychosocial indicators such as confidence, motivation, and well-being. Overall, this increasingly structured body of evidence reflects the methodological diversity and practical complexity of evaluating community-led physical activity interventions in real-world contexts.

Table 1. Overview of Included Studies and Corresponding Programmes by Model Type

| Author, Year | Author's Country/ Funding Source | Study Design | Outcomes and Key Findings | Programme Model | Programme, Country, Target Population, and Components | Community Role in Programme Development and Delivery | Gender-Sensitive and Culturally Responsive Strategies/ Reported Factors for Sustainability |
|------------------------|--|---|--|-----------------|--|--|--|
| Farmer et al., 2020 | Country: Ireland Funding: Irish Research Council | Quasi-experimental, non-randomized controlled trial | Outcomes: PA levels, FMS proficiency, psychological correlates (e.g., self-efficacy) Findings: Significant increases in PA, FMS, and psychological correlates in the intervention group | Model 1 | Programme: Gaelic4Girls, a modified Ladies Gaelic Football intervention Country: Ireland Population: 87 girls aged 8-12 in community sports clubs Components: Ladies Gaelic Football; coach and parent workshops; take-home skill cards | Role: Community (clubs/coaches) as implementers. Design was top-down from external experts (Ladies Gaelic Football Association/researchers) Impact: Ensured faithful implementation of the theory-informed curriculum | Gender: Girls-only programme to combat drop-off in sport; focused on psychological needs critical for girls' retention Cultural: Used a culturally significant Irish sport delivered through established local clubs Sustainability: Not mentioned |
| Kinnafick et al., 2021 | Country: England, UK Funding: England Netball and Sport England | Mixed-methods (RE-AIM evaluation) | Outcomes: RE-AIM framework (reach, effectiveness on PA/health, etc.) Findings: Significantly improved PA, mental health, and physical function; reached many inactive women | Model 1 | Programme: Walking Netball, an adapted version of netball Country: England, UK Population: Middle- to older-aged women, members of the Women's Institute Components: Walking Netball; training for volunteer hosts; resource provision (videos, booklets) | Role: Community (Women's Institute) as implementation partner. National organisations as designers Impact: Established a volunteer-led delivery model | Gender: Delivered through a nationwide women-only organisation; adapted for older women's physical needs Cultural: Partnered with the culturally significant Women's Institute; leveraged its social culture Sustainability: Built-in model: training local hosts; maintained via inter-WI competitions; adapted to virtual delivery |

Table 1. (Continued)

| Author, Year | Author's Country/ Funding Source | Study Design | Outcomes and Key Findings | Programme Model | Programme, Country, Target Population, and Components | Community Role in Programme Development and Delivery | Gender-Sensitive and Culturally Responsive Strategies/ Reported Factors for Sustainability |
|-----------------------|---|--|---|-----------------|---|--|---|
| Kaioglou et al., 2025 | Country: Greece Funding: Not mentioned | Quasi-experimental (pre-post comparison) | Outcomes: PA level, total PL score Findings: No significant change in actual or perceived PA; significant improvement in total PL level, especially in Physical Competence and Knowledge domains | Model 1 | Programme: A theory-based PL intervention within gymnastics Country: Greece Population: 44 girls in a community gymnastics programme Components: Integrated all PL domains (affective, cognitive, behavioural) | Role: Community (coaches) as activity selectors/implementers. Researchers as designers Impact: Ensured feasibility and relevance by selecting appropriate activities | Gender: All-girls programme; focused on motivation and confidence, critical factors for retaining girls in sport Cultural: Embedded within an existing, non-competitive community athletic centre Sustainability: Not mentioned |
| Bernabe & Block, 1994 | Country: USA Funding: Not mentioned | Mixed-method case study | Outcomes: PA participation (batting and on-base average), game performance, social and sport skills Findings: Modifications were successful; participant was well-received and improved skills | Model 2 | Programme: A rule modification initiative within a regular girls' fast-pitch softball league Country: USA Population: A 12-year-old girl with severe disabilities and her softball league Components: Fast-pitch softball; preseason coaches' meeting and player surveys | Role: Community (parents, coaches, players) as co-decision makers Impact: Rule modifications were suggested by and approved by the community | Gender: Focused on inclusion within a pre-existing girls-only sports league Cultural: Worked within existing community league structures, valuing input from local figures Sustainability: Co-decision model involving all stakeholders presented as a sustainable practice |

Table 1. (Continued)

| Author, Year | Author's Country/ Funding Source | Study Design | Outcomes and Key Findings | Programme Model | Programme, Country, Target Population, and Components | Community Role in Programme Development and Delivery | Gender-Sensitive and Culturally Responsive Strategies/ Reported Factors for Sustainability |
|-----------------------------|---|------------------------------|--|-----------------|--|---|---|
| Guerin et al., 2003 | Country: New Zealand Funding: Foundation for Research, Science and Technology and other agencies | Qualitative study | Outcomes: PA participation and barriers; social, physical, and cultural effects Findings: Increased willingness to engage in PA; highlighted the importance of women-only spaces and addressing cultural barriers | Model 2 | Programme: Somali Women's Physical Activity Programme Country: New Zealand Population: Refugee Somali women aged 17-67, 75% had children Components: Exercise classes, gym workouts, walking groups, sports with cultural adaptations | Role: Community (local Somali women) as initiators and co-designers Impact: The entire programme was designed in direct response to the community's expressed needs | Gender: Women-only environment was reported as a prerequisite for involvement; addressed barriers like childcare Cultural: Highly responsive; activities held after dark for privacy; facilities adapted for modesty Sustainability: Limited by loss of external funding; facilitated by peer networks enabling informal, self-organised activity |
| Amiri-Farahani et al., 2021 | Country: Iran Funding: Tehran University of Medical Sciences | Mixed method action research | Outcomes: Total PA score; qualitative experiences Findings: Significant increase in PA score post-intervention | Model 2 | Programme: BELIEVE, a multi-component intervention Country: Iran Population: Women aged 18-65 with insufficient PA Components: Exercise, health promotion, cognitive behavioural therapy | Role: Community (participants, leaders, etc.) as primary co-creators through a participatory action research process Impact: Community co-created the programme's vision, name, and strategies | Gender: Women-only environment; addressed psychosocial barriers (e.g., family obligations) Cultural: Used local health promotion methods (e.g., lectures in mosques) Sustainability: Collaborative strategies and the action research approach were identified as positively affecting PA |

Table 1. (Continued)

| Author, Year | Author's Country/ Funding Source | Study Design | Outcomes and Key Findings | Programme Model | Programme, Country, Target Population, and Components | Community Role in Programme Development and Delivery | Gender-Sensitive and Culturally Responsive Strategies/ Reported Factors for Sustainability |
|-----------------------|--|---|--|-----------------|---|--|--|
| Keane et al., 2020 | Country: Australia Funding: Australian Government | Mixed-methods; Quasi-experimental pre-post design | Outcomes: Recreational PA levels, netball participation, mediators of PA Findings: Programme significantly increased PA levels | Model 3 | Programme: A netball-based "low-engagement village programme" Country: Kingdom of Tonga Population: 301 women aged 18-64, primarily homemakers Components: Netball; skill development workshops (coaching, umpiring); structured competition | Role: Community (leaders, participants) as key informants for the design process Impact: Community input directly informed the final programme | Gender: Women-only netball programme; addressed female-specific barriers (e.g., body image) Cultural: Engaged with key local figures (town officers, church leaders) to secure support Sustainability: Included capacity building by training local "focal points", coaches, and umpires to ensure long-term development |
| Richards et al., 2022 | Country: Australia Funding: Netball Australia | Natural experiment; pre-post measures | Outcomes: Netball participation, recreational MVPA, BMI, mental wellbeing Findings: Significant improvements in PA, body weight, and mental wellbeing | Model 3 | Programme: One Netball Pacific initiative Country: Samoa Population: 47 women aged 15-35+ in rural villages Components: Netball; volunteer coaching course; provision of equipment and uniforms | Role: Community (stakeholders) as key informants for the design process Impact: Programme design directly addressed key determinants of participation identified by the community | Gender: Established a new programme for women in rural villages with historically fewer sporting opportunities Cultural: Utilised a "champions" model, empowering local volunteers to lead Sustainability: Built local capacity by training local volunteers ("champions") to lead long-term development |

Note: BMI = body mass index, FMS = fundamental movement skill, MVPA = moderate to vigorous physical activity, PA = physical activity, PL = physical literac

Overview of Included Programmes

The included programmes demonstrated wide variation in geographical setting, implementation context, and target population, reflecting the diversity of community-led physical activity initiatives for women and girls (Table 1). They were implemented across eight countries, spanning diverse cultural and socio-economic contexts. These ranged from urban, high-income settings to rural and resource-limited communities. Culturally, the programmes span varied social norms, from Western sport systems that promote gender inclusion to religious and community-based contexts where women's participation requires culturally appropriate adaptation. Across these contexts, target populations ranged from school-aged girls to adult and older women, including specific underserved groups such as refugee women and individuals with disabilities. This range highlights the adaptability of community-led initiatives to distinct demographic and cultural contexts.

The findings related to these eight programmes are presented thematically in the following sections. We identified recurring patterns inductively across programmes through full-text review and a structured data extraction process. Initial codes were generated from key programme features, including programme design, community involvement, delivery, responsiveness, and sustainability. Then we iteratively grouped these codes into broader categories through constant comparison across studies.

These categories were further refined into three final models that capture distinct patterns in programme design, leadership, and community involvement. For example, programmes described as externally designed and facilitated by professionals were grouped into an “externally driven” category, which contributed to a model with limited community leadership. In contrast, programmes involving co-creation and local leadership were grouped into a “community-driven” category, which in-

formed a model with greater community ownership. This categorisation is consistent with established frameworks on community participation and empowerment, (Arnstein, 1969; Cargo & Mercer, 2008; O'Mara-Eves et al., 2015).

Studies were assigned to each model based on the dominant characteristics of programme initiation, level of community involvement, and leadership in decision-making and delivery. In cases with mixed features, classification was guided by the predominant programme approach described. The three models are: (1) Structured Programme Adaptation and Implementation, where existing interventions were adapted for local settings; (2) Grassroots Co-creation and Responsive Design, where programmes were developed collaboratively with community members; and (3) Externally Supported Capacity-Building, where external organisations provided resources or training to enable local delivery in underserved contexts. The subsequent sections describe each model in detail, examining how they addressed gender sensitivity and cultural responsiveness through different pathways.

Three Models of Community-Led Programming

Model 1: Structured Programme Adaptation and Implementation

The three programmes grouped under Model 1 demonstrate how existing sports were systematically adapted by external experts to enhance accessibility for specific populations (Farmer et al., 2020; Kaioglou et al., 2025; Kinnafick et al., 2021). As detailed in Table 1, these interventions modified Gaelic football (Farmer et al., 2020), netball (Kinnafick et al., 2021), and gymnastics (Kaioglou et al., 2025) using established theoretical frameworks such as self-determination theory and physical literacy concepts.

The interventions were carefully tailored to the needs of specific age groups, namely young girls (mean age 9–10 years) (Farmer et al., 2020) and older women

(mean age ~70 years) (Kinnafick et al., 2021), with the role of community-level implementers limited to programme delivery rather than co-creation.

Delivery in this model relied on partnerships with established community organisations, which contributed local infrastructure, resources, and social networks that enabled programme implementation. Gaelic4Girls was implemented through Ladies Gaelic Football clubs in Ireland (Farmer et al., 2020), Walking Netball through the Women's Institute in the UK (Kinnafick et al., 2021), and a physical literacy-based gymnastics programme through local sport clubs in Greece (Kaioglou et al., 2025). A central delivery strategy was to train local coaches or volunteers to deliver theory-informed curricula, enabling continuity beyond external expert involvement. In some cases, local coaches selected activities within the researcher-provided framework, ensuring contextual fit (Kaioglou et al., 2025). Overall, delivery in this model was characterised by a structured, top-down approach that relied on formal partnerships and the transfer of theory-informed curricula, allowing only limited opportunities for local adaptation.

Gender and cultural responsiveness were embedded through professional design choices. Gaelic4Girls created girls-only opportunities in a traditionally male-dominated sport (Farmer et al., 2020), Walking Netball adapted existing rules to meet the needs of ageing women (Kinnafick et al., 2021), and the gymnastics programme enhanced children's confidence and physical literacy (Kaioglou et al., 2025). Cultural responsiveness was achieved by embedding programmes within trusted community institutions or culturally significant sport. Outcome evaluations focused on physical activity, health and wellbeing, and skill development (Table 1). Sustainability was rarely addressed in this model. The Walking Netball programme was the only study to report strategies to support its longevity, including training

Women's Institute hosts, integrating activities into competitions between Women's Institute groups, and adapting delivery during COVID-19 (Kinnafick et al., 2021). In contrast, the other two studies provided little evidence of long-term maintenance.

Model 2: Grassroots Co-creation and Responsive Design

In contrast to the structured, expert-driven adaptations described in Model 1, the programmes grouped under Model 2 exemplify a bottom-up approach grounded in grassroots co-creation and responsive design. This model includes three community-initiated programmes developed in diverse settings, including a modified community softball league in the United States (Bernabe & Block, 1994), a culturally tailored physical activity initiative for Somali refugee women in New Zealand (Guerin et al., 2003), and the BELIEVE programme co-developed with women in Iran (Amiri-Farahani et al., 2021). These interventions were not pre-designed by external experts but originated from within the respective communities in response to specific local needs or challenges. As detailed in Table 1, community members served as initiators, co-creators, and co-decision-makers throughout the programme lifecycle. The primary objectives of these initiatives centred respectively on inclusion (Bernabe & Block, 1994), cultural safety (Guerin et al., 2003), and local feasibility (Amiri-Farahani et al., 2021). Taken together, these examples demonstrate how locally driven participation shaped both the content and process of programme design, distinguishing Model 2 from the externally led adaptations described in Model 1.

Programme delivery in Model 2 was grounded in collaboration and continuous dialogue rather than the transfer of a pre-defined curriculum. In the United States, in the community softball league (Bernabe & Block, 1994), coaches, parents, and league officials collectively modified game rules

to include a girl with severe disabilities, establishing a shared decision-making framework.

Similarly, the Somali refugee women's physical activity initiative in New Zealand (Guerin et al., 2003) was co-designed through sustained consultation with community leaders and participants, resulting in culturally appropriate sessions such as women-only classes and after-dark activities to ensure privacy and safety.

In Iran, the BELIEVE programme (Amiri-Farahani et al., 2021) applied a participatory action research approach and the Mobilising for Action through Planning and Partnerships (MAPP) process, allowing women to identify key barriers such as family responsibilities and limited access to facilities, and to co-develop multi-component strategies to address them. Across these programmes, implementation evolved through iterative feedback and negotiation within trusted local networks, which thereby reinforced participation, empowerment, and collective ownership.

Gender and cultural responsiveness were embedded through participatory processes rather than pre-defined frameworks. Gender sensitivity was evident in the creation of safe, women-only spaces and in flexible approaches that considered women's family and social roles. Cultural responsiveness was expressed using familiar institutions and locally meaningful activities. Outcome evaluations in this model often reflected this focus on lived experience, emphasising qualitative data on participation barriers and social outcomes, alongside physical activity levels. Sustainability was closely linked to community ownership, particularly where co-decision models and collaborative strategies were embedded in programme design (Amiri-Farahani et al., 2021; Bernabe & Block, 1994). Guerin et al. (2003) noted that the withdrawal of external funding limited programme continuation. However, the development of enduring peer relationships and social networks among participants suggested potential for informal, peer-led

continuity. Collectively, these findings demonstrate how empowerment through participatory processes can generate contextually grounded, gender-sensitive, and potentially sustainable approaches to women's and girls' physical activity.

Model 3: Externally Supported Capacity-Building

Building on the participatory approaches of Model 2, Model 3 represents a hybrid approach in which external organisations provide funding, training, and resources to help underserved communities develop and sustain physical activity programmes. This model included two netball-based initiatives implemented in the Pacific Islands, specifically in Tonga and Samoa, supported by the Australian government and regional sport agencies (Keane et al., 2020; Richards et al., 2022). In both cases, community members were not the primary co-creators of programme content but contributed as key informants during the early stages of design. Their local insights, gathered through consultation and formative evaluation, guided the development of culturally appropriate and locally relevant programme components. Overall, these initiatives demonstrate how external facilitation, combined with community engagement, can extend the reach of sport-based programmes in low-resource contexts.

Programme delivery in this model centred on building local capacity through structured collaboration between external agencies and community organisations. In Tonga, the Low-Engagement Village Programme enhanced women's participation in netball by developing local leadership through workshops on coaching, umpiring, and programme coordination, and by providing essential equipment and uniforms (Keane et al., 2020). Local "focal points" were identified and trained to coordinate village-level activities and ensure continuity after external support concluded. In Samoa, the One Netball Pacific initiative adopted a similar capacity-

building approach by training community volunteers, known as “champions,” to lead weekly sessions and organise competitions with guidance from the Oceania Netball Federation (Richards et al., 2022). In both programmes, leadership gradually shifted from external coordination to local ownership as community members took on responsibility for ongoing delivery. External input thus functioned as a short-term catalyst to initiate and embed sustainable structures for local participation.

Gender and cultural responsiveness in this model were achieved through early community consultation and the strategic use of a culturally familiar sport. Netball was deliberately chosen for its strong association with women and its social acceptance across the Pacific Islands, which helped address gender-specific barriers to participation while strengthening social cohesion. Cultural alignment was reinforced through partnerships with local leaders, such as town officers and church representatives, ensuring that activities were locally endorsed and embedded within existing community structures. Sustainability was integrated into programme design through the ongoing mentorship and empowerment of local leaders, enabling them to sustain delivery beyond the initial funding period. Together, these initiatives illustrate how externally supported yet locally grounded programmes can create gender-sensitive, culturally responsive, and enduring opportunities for women’s and girls’ participation in physical activity.

Summary of Findings Across Programme Models

Across the three models, a gradual shift was evident from externally facilitated delivery toward participatory and community-owned approaches. The level of community involvement expanded from implementation only (Model 1), to co-creation and shared decision-making (Model 2), and ultimately to capacity-building and local leadership (Model 3). This continuum reflected increasing community agency in

the design, delivery, and long-term stewardship of women’s and girls’ physical activity programmes.

Patterns of delivery and responsiveness also evolved across models. Model 1 relied on externally structured curricula, whereas Models 2 and 3 emphasised participatory dialogue, collaboration, and leadership development. Gender responsiveness varied across models, embedded by professional design in Model 1, emerging organically through participation in Model 2, and achieved through strategic activity selection in Model 3. Similarly, cultural responsiveness progressed from alignment with local institutions to participatory co-design and, finally, to culturally congruent leadership.

Differences in outcomes and sustainability mirrored this progression. Model 1 evaluations focused primarily on short-term physical activity outcomes, such as physical activity levels and movement skills. Model 2 highlighted experiential and social outcomes, including inclusion, empowerment, and confidence. Model 3 adopted broader public health measures, assessing physical, psychological, and wellbeing indicators. Sustainability was rarely addressed in Model 1, emerged through community ownership in Model 2, and was explicitly embedded in Model 3 through leadership training and local capacity-building. Collectively, these findings illustrate a continuum of approaches reflecting increasing participation, contextual responsiveness, and sustainability in community-led physical activity promotion.

Discussion

This scoping review aimed to explore and synthesise existing evidence on community-led physical activity programmes for women and girls. In the subsequent sections, we interpreted our results in relation to the study characteristics, the synthesised models derived from the included programmes, and the review

outcomes that addressed our research questions.

Study Characteristics

Six of the eight studies included in this review were published after 2020, indicating an increasing awareness of community-led women's and girls' sport programmes within the academic field. This trend is further corroborated by the limited number of similar reviews conducted by scholars focusing on community women's and girls' programmes in the last 10 years (Farahani et al., 2015; Pedersen & King, 2023; Vidaurreta et al., 2025). In contrast to our review, these other reviews did not specifically focus on community-led programmes that ensure gender sensitivity and incorporate local and cultural knowledge.

Farahani et al. (2015) concluded that there was insufficient evidence in the field (2000-2013) to support the claim that community-level interventions can enhance physical activity among women. The researchers called for a comprehensive examination of the intervention features to ensure their sustainability and impact on women's physical activity, an objective we addressed in our review. Pedersen & King (2023) found four studies based on two women's programmes that aimed to enhance health outcomes reported through participatory action research. The two women-only programmes were preceded by and developed from men-only or mixed-gender interventions, indicating a strategic shift towards achieving health equity through sport. Our review further corroborates this finding, as we identified eight distinct studies that used sport to enhance physical activity. Vidaurreta et al. (2025) focused on women's embodied pathways in sport experience, covering high-performance and community sport. They suggested that future programmes for women and girls should incorporate

considerations of cultural and gender influences in their design, aligning with the objectives of our current review, which were reflected in most of the study designs.

Our review identified eight studies conducted across seven countries spanning three continents, with Iran the sole nation not included in the Organisation for Economic Co-operation and Development (OECD). Non-OECD countries often face heightened socioeconomic challenges and thinner institutional safety nets; consistent with evidence from Global South settings, community-led sport programmes are especially warranted there to expand participation, wellbeing, and social cohesion (Svensson & Woods, 2017). The studies predominantly applied mixed-methods and pre-post comparison approaches. The use of mixed-methods research facilitated a nuanced understanding of marginalised populations, such as women and girls, through qualitative exploration. Additionally, triangulating data from qualitative and quantitative methods corroborated findings from multiple perspectives, thereby mitigating the biases inherent in a single-method approach.

All studies included in this review reported increased physical activity among participants, along with improved interpersonal and psychosocial outcomes. Considering the community-driven nature of these studies, it would be valuable to consider whether outcomes at the Community-level social cohesion and community empowerment are being articulated in the research objectives. However, these community-level outcomes appear under-examined, despite the programmes being explicitly framed as community-based. Overall, the diverse methodological design and reported outcomes may hint at the contextual factors and community dynamics that influence both the implementation and effectiveness of physical activity interventions.

Programme Characteristics and The Three Models

To extract themes from the programmes, we referred to three foundational frameworks in community participation and engagement, as well as participatory research involving the community. Arnstein's (1969) Ladder of Citizen Participation conceptualises participation as a hierarchy of power, ranging from non-participation to full citizen control, and is useful for assessing the extent of community authority in decision-making. O'Mara-Eves et al.'s (2015) typology of community engagement focuses on the level and nature of engagement in public health interventions identify stages such as informing, acting together, and supporting independent community interests. Cargo and Mercer's (2008) participatory research framework outlines the principles of community-based participatory research, emphasising co-learning, shared ownership of the research process, and the integration of local knowledge to foster empowerment and mutual benefit.

Model 1 refers to Structured Programme Adaptation and Implementation, in which the programme's delivery to the target community relied on partnerships with well-established community organisations in the areas. This model embodies a community engagement approach at the 'acting together' level, as described by O'Mara-Eves et al. (2015). It corresponds to the 'Partnership' stage on Arnstein's ladder (1969), where power is shared during implementation but not necessarily in the design phase, which was reflected in the three programmes under this model.

It is important to acknowledge that programmes within this model do not ensure complete community leadership or decision-making as recommended by Arnstein (1969) or participatory research frameworks (Cargo & Mercer, 2008). Nevertheless, these programmes may still play a significant role in promoting women's empowerment and health equity, particularly when their design is developed

and validated by experts and researchers in the field, as exemplified by the three programmes (Farmer et al., 2020; Kaioglou et al., 2025; Kinnafick et al., 2021) in question. In this context, partnership and collaborative action signify advanced community engagement, with careful attention to gender sensitivity and the local context in all instances.

In Model 2, the concepts of grass-roots co-creation and responsive design were evident in three programmes (Amiri-Farahani et al., 2021; Bernabe & Block, 1994; Guerin et al., 2003) that prioritised bottom-up, community-driven approaches to developing sport initiatives for their target populations. These programmes were either newly established or adapted to the expressed needs of the communities, without relying on external experts.

Beyond promoting physical activity, they explicitly addressed inclusion, cultural safety, and local feasibility, highlighting gender and cultural considerations more strongly than the other two models. These programmes illustrate how sport can serve as a cost-effective platform for achieving multiple social outcomes, including social cohesion, empowerment and community capacity-building, as seen in sport-for-development programmes (Morgan & Parker, 2023). Integrating these social dimensions into outcome reporting or conducting additional investigation would be valuable, as demonstrated by the three studies.

Each study included a qualitative component that foregrounded human experiences and contextualised programme outcomes. The use of participatory action research also introduced potential for participants' empowerment, especially for women and girls, a dimension that merits further evaluation. Notably, while one programme (Guerin et al., 2003) experienced disruption due to funding discontinuation, its co-creation approach fostered a sense of community ownership, which in turn enabled local women to

seek solutions and sustain momentum independently.

This kind of indirect impact, where communities build resilience and agency, underscores the longer-term value of grassroots, participatory design (Laverack, 2006; Popay, 2021). Unlike the ‘acting together’ level of engagement evident in Model 1, where implementation is shared but design remains externally led, Model 2 reflects deeper community leadership and ownership, which may lead to more sustainable, locally driven outcomes.

In Model 3, the Externally Supported Capacity-Building programmes retain the has autonomy to develop its initiatives independently. The distinction from the preceding two models lies in the involvement of external stakeholders who facilitate capacity building, enabling local implementers to execute programmes for women in need. Local informants, selected from within the women's community, serve as the source of local knowledge and provide a nuanced understanding of the women participants.

While the programmes retained community leadership in delivery, external actors played a guiding role in shaping programme structure and supporting implementation logistics. Model 3 occupies a middle ground between top-down adaptation and fully community-led design, leveraging external expertise to strengthen local capacity without displacing community agency (O'Mara-Eves et al., 2015). The implementation of culturally familiar and gender-sensitive sport, such as netball, demonstrated the significant impact of local focal points.

The sustainability of these programmes was maintained through the development of these focal points and the ongoing mentorship of other women as focal points. This indicates that the programmes were successfully renewed through the empowerment of the implementers, which is both a means and an end in community programmes (Laverack, 2006; Popay, 2021). However, it remains uncertain

whether empowerment was observed among the participants.

A key consideration is whether the externally introduced support structures are designed with a pathway for local transition and autonomy once the initial funding or technical support is withdrawn.

Implications

Historically, there has been a lack of reviews concerning community sport programmes for women and girls. This scoping review emphasises a community-led approach, suggesting that communities can collaborate to design and implement sport initiatives to enhance physical activity levels and achieve additional outcomes. Our review indicated that varying levels of community engagement, from structured partnerships to grassroots co-creation, can be effective depending on context. Policy-makers and programme designers should select or adapt engagement models based on local needs, readiness, and capacity, rather than applying a one-size-fits-all approach.

Programmes categorised under Models 2 and 3 demonstrated varying degrees of effectiveness. Programmes that were explicitly gender-sensitive and culturally grounded (Model 2) not only reported increased physical activity but also facilitated social inclusion and community ownership. To effectively advance participatory research and address the specific needs of participants, it is imperative that funding and implementation frameworks incorporate gender and cultural considerations from the initial planning stages, particularly in underserved or marginalised contexts (Wallerstein & Duran, 2010).

Programmes supported through capacity-building models (Model 3) demonstrated the potential for local sustainability when women are empowered as focal points. Future programmes may embed clear exit strategies that include leadership handover, skills training, and peer mentorship to reduce dependency on external actors.

Our review highlights persistent research gaps in the study of community sport, particularly regarding underserved communities and various intersectional identities, such as ethnicity, ability, and socioeconomic status (Lee et al., 2023). Most studies have focused on measuring physical activity level and psychosocial impacts at the individual level. However, outcomes such as community empowerment, social cohesion, and agency have either been inferred or insufficiently evaluated (Theeboom et al., 2023).

Future evaluations should incorporate frameworks capable of capturing collective and structural outcomes, rather than solely focusing on individual behaviour change. Programmes that integrated participatory action research and qualitative methodologies have demonstrated a more profound understanding of lived experiences and local agency. This underscores the significance of collaborative knowledge production in enhancing the relevance, legitimacy, and impact of programmes, an approach that should be more widely adopted in sport-based public health interventions.

Limitations and Recommendations for Future Research

This scoping review has certain limitations. The limited number of included studies may not adequately capture the actual patterns or characteristics of community-led sport programmes for women and girls. Even though we did not aim for generalisation, most studies were conducted in OECD contexts, with only one from a non-OECD country. This limits the generalisability of findings to Global South settings, where community-led sport initiatives may operate under different resource constraints and sociopolitical dynamics (Svensson & Woods, 2017).

Uncertainties around the “community-led” element and insufficient reporting on governance structures or decision-making processes made it difficult to categorically determine the level of community engage-

ment in some studies. This may have led to classification bias across the three models. As a scoping review, our findings are constrained by the scope and quality of the included primary studies. Many studies did not report on community-level or structural outcomes such as empowerment or leadership development, limiting our ability to draw strong conclusions on these dimensions, which are essential in a “community-led” context.

Future research on community-led women’s and girls’ physical activity programmes should consider both methodological enhancements and broader conceptual frameworks to capture the full scope of programme impact.

First, we encourage researchers to incorporate qualitative or complementary mixed-methods designs to evaluate not only PA-related outcomes but also unintended or non-health outcomes, such as shifts in self-perception, social inclusion, or local leadership. This includes moving beyond individual-level metrics to integrate longitudinal assessments of community empowerment, ownership, leadership retention and social capital.

Second, the use of participatory research approaches, including participatory action research, may be expanded to ensure that community voices, particularly those of women and girls, are meaningfully included in both programme design and evaluation. These approaches can surface indirect impacts and contextual insights that are often missed by standard evaluation tools.

Third, the adoption of standardised engagement frameworks, such as Arnstein’s (1969) Ladder of Citizen Participation and the typology by O’Mara-Eves et al. (2015), is recommended to enable clearer reporting on the depth, type, and progression of community participation. This will enhance the comparability and transferability of findings across different programmes and settings.

Last, there is a critical need for greater geographic and socioeconomic diversity in

the evidence base. Future studies can be conducted in non-OECD and low-resource contexts, where the structural and cultural dynamics of women's and girls' participation may differ substantially. Researchers are urged to incorporate intersectional analyses, considering how ethnicity, class, age, disability, and other social factors influence access, engagement, and programme outcomes.

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