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An Expert-Informed Grounded Theory of Health-Oriented Participatory Sports Competitions in Iran: From Episodic Competition to Sustainable Health-Promoting Participation

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ABSTRACT

Participatory sport events can provide an accessible entry point to physical activity, social connection, and health promotion; however, one-off competitions do not necessarily generate sustained participation. This qualitative study aimed to develop an expert-informed grounded theory explaining how health-oriented participatory sports competitions in Iran may be organized to support sustained, health-promoting participation. Classical grounded theory with Glaser's emergent approach was used. Fifteen experts in sport management, sport-for-all, public health, physical activity, and participatory sport-event organization were selected through purposive and theoretical sampling. In-depth semi-structured interviews continued until theoretical saturation. Interviews were audio-recorded with participants' agreement, transcribed verbatim, and analyzed through constant comparison, open coding, selective coding, theoretical coding, and memo writing. Analysis generated 106 initial codes, 41 subcategories, and 13 main categories organized into four overarching dimensions: (1) institutional and strategic requirements; (2) participation and health architecture; (3) assurance of responsible implementation; and (4) learning and health legacy. The core category was "transforming episodic competition into sustainable health-promoting participation." The emergent model suggests that intersectoral governance and evidence-based planning provide the conditions for inclusive and health-centered design; responsible implementation supports safety, service quality, communication, and sustainability; and post-event monitoring creates a feedback mechanism through which anticipated physical, psychological, social, behavioral, and organizational legacies may be strengthened. The findings conceptualize these competitions as recurring, learning-oriented components of a broader participation system rather than isolated events. The model provides a context-sensitive framework for sport and public-health policymakers, municipalities, sport federations, and event organizers seeking to connect event participation with longer-term opportunities for physical activity.

Keywords: Grounded theory; sport events; sport participation; health promotion; sport-for-all; public health; Iran

Introduction

Physical inactivity remains a major public-health challenge, and opportunities for regular, enjoyable, and socially meaningful physical activity are central to population-level prevention strategies. Contemporary physical-activity guidelines emphasize that regular movement contributes to physical, mental, and social health across the life course, while the World Health Organization's Global Action Plan on Physical Activity calls for more active societies, environments, people, and systems (Bull et al., 2020; World Health, 2018). Yet participation is not produced by information alone. It is shaped by intersecting personal, social, environmental, organizational, and policy conditions, including access, affordability, motivation, local culture, infrastructure, and institutional support (Bauman et al., 2012; Pedersen et al., 2021).

Participatory sport events are potentially valuable within this wider system because they can create visible, time-bounded opportunities for people to be active, share experiences with others, and connect with community sport. In this study, health-oriented participatory sports competitions are defined as organized competitive or quasi-competitive events designed primarily to enable broad public participation and support physical, psychological, and social health rather than to identify elite performance alone. They overlap with mass-participation and community sport events but are distinguished here by the explicit integration of health, inclusion, safety, and post-event continuity into event design and management. Research on participatory sport events has linked participation with social capital and community benefits (Parra-Camacho et al., 2021; Zhou & Kaplanidou, 2018), while evidence on sport participation more broadly demonstrates potential mental-health and social benefits (Eather et al., 2023). Group-based sport and exercise may also strengthen socio-psychological well-being through social interaction and belonging (Tsuiji et al., 2020).

However, the assumption that a successful event automatically produces sustained physical activity is not supported by the evidence. Early work cautioned that mass sport events may have limited population-health effects unless they are deliberately connected to health-promotion strategies (Murphy & Bauman, 2007). A later scoping review found that evidence concerning sport-event effects on sport participation remained fragmented and theoretically inconsistent, with a need for more work on participant events, smaller-scale events, and sustained outcomes (Teare & Taks, 2021). Similarly, a systematic review of mass participation sporting events concluded that events can influence physical-activity behavior and related motivational outcomes, but long-term maintenance requires explicit post-event support and better-designed interventions (McVinnie et al., 2023). These findings shift the key managerial question from whether an event attracts participants to how an event is embedded within a pathway that supports continued participation.

This shift is consistent with broader sport-participation research. The Sport Participation Pathway Model emphasizes that participation and retention are dynamic and that sport systems must address the different conditions affecting entry, continuation, and re-entry (Eime et al., 2022). At the organizational level, sport bodies may struggle to reconcile elite-performance logics with Sport-for-All goals (De Bock et al., 2022), while health-promoting sport frameworks argue for coordinated organizational strategies that integrate health into policies, practices, environments, and relationships rather than treating health promotion as an optional add-on (Johnson et al., 2024). European evidence also suggests substantial variation in how strongly sport organizations commit to health-enhancing physical activity promotion, reinforcing the importance of institutional structures and implementation capacity (Matolić et al., 2023).

The Iranian context strengthens the need for a locally grounded framework. National STEPS 2021 data indicated that 51.3% of Iranian adults had insufficient physical activity, with a higher prevalence among women (57.87%) than men (41.93%)

(Nejadghaderi et al., 2023). At the same time, health-oriented participatory competitions operate within a complex institutional environment involving sport-governance structures, municipalities, sport federations, health institutions, local cultures, resource constraints, and geographic inequalities. Differences in access among women, older adults, people with disabilities, people with chronic conditions, and lower-income groups further limit the usefulness of simply transferring models developed for elite sport or other national contexts. Event management must also address risk assessment, emergency planning, medical provision, service quality, communication, data protection, environmental sustainability, and economic continuity. Safety guidance for large sporting events illustrates the need for systematic health protection, while health-promotion scholarship emphasizes alignment among policies, environments, services, and participant experience (Johnson et al., 2024; Mountjoy et al., 2021).

Accordingly, this study aimed to develop a grounded theory of how health-oriented participatory sports competitions can be organized in the Iranian context so that a short-term competition is positioned within a broader pathway toward sustainable, health-promoting participation. The guiding research question was: How do experienced sport and health professionals explain the organizational, design, implementation, and learning processes required to connect episodic competition with sustained health-promoting participation?

Methodology

Study design and methodological orientation

The study used classical grounded theory with Glaser's emergent approach (Glaser, 1978, 1992, 1998; Glaser & Strauss, 1967). The purpose was to generate an explanatory model from participants' accounts rather than test a predetermined event-management framework. Data collection and analysis proceeded concurrently and iteratively, and constant comparison was used to compare incident with incident, code with code, and emerging category with category. The broad topics in the interview guide were treated as sensitizing entry points rather than as analytic categories; the final coding structure was not specified in advance, and no predefined theoretical coding family was imposed during integration. The presentation of the methods was informed by relevant COREQ domains for interview studies (Tong et al., 2007).

Participants and sampling

The target population comprised experts and key informants in sport management, sport-for-all, public health, physical activity, and the design, implementation, or evaluation of participatory sport events. Eligibility emphasized relevant scientific, managerial, research, or executive experience; familiarity with the objectives and functions of health-oriented participatory competitions; knowledge of opportunities and constraints affecting such events in Iran; and the ability to provide specialized, experience-based insight. Initial purposive sampling sought participants with varied forms of relevant expertise. As analysis progressed, theoretical sampling was used to obtain further conceptual elaboration of emerging categories rather than statistical representativeness. Recruitment and analysis continued until additional interviews no longer contributed new codes, category properties, or meaningful relationships. Theoretical saturation was reached after 15 interviews. Participants included university academics and researchers, sport-event managers, former sport-for-all administrators, municipal sport experts, health-promotion professionals, coaches, and specialists in sport sociology and sport psychology. Eight participants were men and seven were women; ages ranged from 32 to 58 years, and professional experience ranged from 8 to 28 years.

Data collection

Data were generated through in-depth semi-structured interviews. The initial guide contained six broad prompts concerning the characteristics of health-oriented participatory competitions; institutional and managerial conditions; inclusive participation; health, safety, service quality, and satisfaction; technology, communication, resources, and environmental considerations; and possible individual, community, and organizational consequences. These prompts provided an initial conversational structure rather than a fixed analytic framework. Their order was not standardized, and follow-up, explanatory, and probing questions were adapted to participants' responses. As categories developed, subsequent interviews placed greater emphasis on clarifying their properties, boundaries, and relationships. With participants' agreement, interviews were audio-recorded and transcribed verbatim. Interviews lasted approximately 45 minutes on average. Data collection continued until new interviews no longer added substantive conceptual properties or relationships. For this English-language report, illustrative quotations were translated from Persian and checked against the source wording to preserve conceptual meaning.

Data analysis

Analysis followed three interrelated stages. During open coding, transcripts were repeatedly read and meaningful segments were examined line by line and phrase by phrase. Codes were assigned to data concerning the design, implementation, evaluation, or consequences of health-oriented participatory competitions. Constant comparison was used to identify similarities, differences, conditions, and potential relationships; overlapping codes were merged while analytically irrelevant material was set aside. This stage generated 106 initial codes. During selective coding, analysis focused on concepts that recurrently explained the central problem and linked the developing categories; the refined codes were grouped into 41 subcategories and then 13 main categories. During theoretical coding, relationships among categories were examined without forcing a predefined coding family, leading to four overarching dimensions. The core category was retained because it connected these dimensions and explained the central transition described across the interviews: moving from a one-off competitive event toward an organized pathway capable of supporting continued, health-oriented participation. Analytic memos were used throughout to record questions, comparisons, emerging relationships, and theoretical decisions.

Trustworthiness

Several procedures were used to strengthen credibility, dependability, and analytic transparency. The initial interview guide was reviewed by subject-matter experts for relevance, clarity, conceptual coverage, logical sequence, and comprehensibility, and ambiguous, repetitive, or leading wording was revised. Concurrent data collection and analysis allowed emerging concepts to be examined in later interviews. Constant comparison, memo writing, theoretical sampling, and saturation supported conceptual development. For coding dependability, three interviews were selected and independently recoded by the researcher and a second coder familiar with qualitative analysis. Overall inter-coder agreement was 77.4% (0.774). This agreement check was used as a supplementary dependability procedure rather than as the basis for category generation, which remained grounded in constant comparison and theoretical integration. Participant identifiers (P1-P15) were used throughout reporting to protect identity.

Table 1. Characteristics of the qualitative sample

Characteristic	Description
Sample size	15 experts/key informants
Gender	8 men; 7 women
Age	32-58 years
Education	7 doctoral degree holders; 8 master's degree holders
Professional experience	8-28 years

Fields represented	Sport management, exercise physiology, corrective exercise, health promotion, sport sociology, sport psychology, municipal sport, sport-for-all, and participatory event management
Sampling	Purposive and theoretical sampling; final sample determined by theoretical saturation

Research Findings

The analysis generated 106 initial codes, 41 subcategories, and 13 main categories. The 13 categories were organized into four overarching dimensions: institutional and strategic requirements; participation and health architecture; assurance of responsible implementation; and learning and health legacy. Across these dimensions, the core category was “transforming episodic competition into sustainable health-promoting participation.” The emergent theory represents a cyclical process rather than a simple linear sequence. Participants described institutional conditions as enabling inclusive health-oriented design; responsible implementation as supporting a safe, fair, and credible experience; and monitoring and learning as feeding information back into future planning while health legacy represented anticipated longer-term consequences. These relationships are theoretical propositions generated from expert accounts rather than observed causal effects.

Table 2. Emergent dimensions, main categories, and subcategories

Overarching dimension	Main category	Subcategories
Institutional and strategic requirements	Synergistic governance	Intersectoral coordination; division of responsibility; legal support
Institutional and strategic requirements	Evidence-based planning	Needs assessment; goal setting; feasibility analysis
Institutional and strategic requirements	Resource mobilization	Financing; human resources; operational facilities
Participation and health architecture	Participation-oriented design	Flexible rules; diversity of competitions; collective participation
Participation and health architecture	Equity and accessibility	Economic access; spatial access; population inclusion
Participation and health architecture	Health orientation of competition	Appropriate activity prescription; health education; healthy environment
Participation and health architecture	Culture and motivation	Enjoyable experience; social belonging; sustainable motivation
Assurance of responsible implementation	Safety and risk management	Risk assessment; medical services; social safeguarding
Assurance of responsible implementation	Service quality	Pre-event services; services during implementation; procedural fairness
Assurance of responsible implementation	Communication and technology	Targeted communication; digital management; digital inclusion
Assurance of responsible implementation	Environmental and economic sustainability	Green management; local economy; financial continuity
Learning and health legacy	Monitoring and learning	Process measurement; outcome evaluation; continuous improvement
Learning and health legacy	Health legacy	Physical; psychological; social; behavioral; organizational outcomes

Table 3. Illustrative audit trail from interview data to the coding hierarchy

Illustrative participant statement	Initial code	Subcategory	Main category	Overarching dimension
“There should be a joint body ... and each organization is accountable for its performance.” (P1)	Formation of a joint body; organizational accountability	Intersectoral coordination / division of responsibility	Synergistic governance	Institutional and strategic requirements
“Rules should be simple, and people should be able to choose the level and intensity according to their ability.” (P4)	Simplification of rules; choice of activity intensity	Flexible rules	Participation-oriented design	Participation and health architecture
“The route, crowd, heat, pollution ... medical team, ambulance and defibrillator should be ready.” (P14)	Comprehensive risk assessment; emergency medical readiness	Risk assessment / medical services	Safety and risk management	Assurance of responsible implementation
“We should not only report the number of participants ... [but] whether people continued physical activity after the event.” (P15)	Post-event follow-up; evaluation beyond attendance	Outcome evaluation	Monitoring and learning	Learning and health legacy
“The event should help people remain active ... and make health orientation a stable policy.” (P12)	Continuation of physical activity; institutionalization of health-oriented policy	Behavioral / organizational outcomes	Health legacy	Learning and health legacy

Dimension 1: Institutional and strategic requirements

The first dimension describes the organizational conditions that make a health-oriented participatory competition feasible and legitimate. It contains three categories: synergistic governance, evidence-based planning, and resource mobilization.

Synergistic governance captured the need to move beyond fragmented action by individual agencies. Participants described health-oriented participatory competitions as inherently intersectoral, requiring coordination among sport authorities, health institutions, municipalities, federations and sport boards, and civil-society organizations. Shared structures were expected to clarify responsibilities from planning through post-event accountability, create legal and managerial support, and make decisions and resource allocation more transparent. As P1 explained, “As long as each organization runs its own program, the competition remains a scattered activity. There should be a joint body in which the responsibilities of the Ministry of Sport, the Ministry of Health, municipalities, federations, and nongovernmental organizations are clear, and each organization is accountable for its performance.”

Evidence-based planning emphasized needs assessment, measurable objectives, feasibility analysis, and adaptation to local conditions. Participants rejected event selection based simply on organizer preference. They argued that the type, timing, location, and target group should follow assessment of local health needs, patterns of inactivity, available facilities, climate, cultural features, and previous experience. Contingency planning was also considered essential. P5 summarized this logic: “First we need to know what the health problem in the area is, which groups are less physically active, and what resources are available. Then we can define measurable objectives, an implementation calendar, and an alternative plan.”

Resource mobilization extended beyond event budgets. Participants described the need to combine public funding, responsible private sponsorship, trained volunteers, health professionals, equipment, and shared institutional capacity. Dependence on a single sponsor or a single government budget line was seen as a threat to continuity. Equitable geographic distribution of human and material resources was also emphasized so that smaller cities and underserved areas were not structurally excluded.

Dimension 2: Participation and health architecture

The second dimension explains how the competition itself should be designed so that people with different abilities, resources, and motivations can enter and have a health-promoting experience. It includes participation-oriented design, equity and accessibility, health orientation of competition, and culture and motivation.

Participation-oriented design called for flexible rules, graded levels of difficulty, reduced emphasis on winning, and opportunities to select an intensity appropriate to personal capacity. Family-based, team-based, neighborhood-based formats and locally familiar games were viewed as mechanisms for making events more socially recognizable and less intimidating. P4 stated, “In participatory competitions, everything should not be limited to championship and the final result. Rules should be simple, and people should be able to choose the level and intensity according to their ability. Family, team, neighborhood events and local games make more people feel that the event was designed for them.”

Equity and accessibility referred to genuine rather than symbolic opportunity to participate. Economic barriers included registration fees, transportation, and equipment costs. Spatial barriers involved concentration of events in advantaged areas and weak transportation access. Population inclusion required adaptation for women, older adults, people with disabilities, and people living with chronic disease. Participants repeatedly emphasized that these groups should not be treated merely

as spectators; routes, timing, activity intensity, facilities, and support should be designed so that they can participate safely and meaningfully.

Health orientation of competition was identified as the feature that most clearly distinguishes the proposed events from conventional performance-centered competition. Participants argued that health should be embedded in activity prescription, pre-participation screening, warm-up and cool-down, hydration, nutrition, sleep and recovery education, and psychological support. Health messaging was expected to be consistent with sponsorship; promotion of products that contradict health objectives was considered incompatible with the event's purpose. P11 noted, "Being health-oriented does not mean putting up a health banner. The intensity of activity should match age and physical condition, higher-risk groups should be screened, and warm-up, cool-down, safe water, nutrition, sleep and recovery should be part of the program."

Culture and motivation captured the emotional and social mechanisms supporting repeat participation. Enjoyment, perceived competence, self-efficacy, autonomy, belonging, family involvement, positive role models, and recognition of personal progress were central. Participants opposed recognition systems focused only on the first-place finishers. P10 stated that people are more likely to return when they enjoy participation and feel capable, and that progress, cooperation, and continuity should also be recognized. The category therefore reframed motivation from short-lived competitive pressure toward a positive experience that can be incorporated into everyday life.

Dimension 3: Assurance of responsible implementation

The third dimension concerns whether the promises made in planning and design are delivered safely, fairly, and sustainably in practice. It includes safety and risk management, service quality, communication and technology, and environmental and economic sustainability.

Safety and risk management included comprehensive risk assessment, weather and air-pollution contingencies, crowd management, evacuation routes, medical teams, ambulance access, and automated external defibrillators. Participants broadened safety beyond medical incidents to include social safeguarding, especially mechanisms to prevent and respond to harassment and unsafe behavior affecting women and children. P14 emphasized that route, crowd, heat, pollution, participant characteristics, emergency evacuation, medical support, and safeguarding must be considered before the event begins.

Service quality covered the full participant journey from registration through event completion and complaint handling. Easy registration, accurate information, punctual scheduling, access to the venue, sanitation, responsive staff, fair officiating, and transparent complaint procedures were regarded as determinants of trust and willingness to return. In participants' accounts, technical event delivery and the interpersonal experience were inseparable: an event could be conceptually inclusive yet still discourage future participation if registration was confusing, schedules were unreliable, facilities were inadequate, or staff were unresponsive.

Communication and technology referred to targeted health communication and the use of digital tools for registration, tracking, feedback, and post-event contact. Participants supported digital services but explicitly warned against digital exclusion. Online registration should coexist with in-person options, and communication should be adapted to different groups such as adolescents, older adults, and families. Data collection should occur with participant agreement and personal information should remain confidential. P2 explained that digital registration and feedback are useful, "but there should also

be an in-person route so that nobody is excluded because they do not have internet access. People's information should also be kept confidential with their consent."

Environmental and economic sustainability linked the health mission of the event to responsible use of resources and the ability to repeat the program. Waste reduction, reduced single-use plastic, management of water and energy consumption, public transport, local procurement, and support for local businesses were coupled with cost control and periodic financing. Participants reasoned that a competition presented as health-promoting should not create avoidable environmental harms, and that an event dependent on unstable financing is unlikely to produce durable participation pathways.

Dimension 4: Learning and health legacy

The fourth dimension begins where many event evaluations end. It contains two conceptually distinct but connected categories: monitoring and learning, which functions as an organizational feedback mechanism, and health legacy, which represents the anticipated longer-term consequences that participants believed well-designed events should seek to support. Grouping these categories within one dimension reflects their shared post-event orientation while preserving their different theoretical roles.

Monitoring and learning required organizers to measure more than attendance. Participants proposed tracking who participated, which groups were underrepresented, satisfaction, incidents, physical-activity indicators, and continuation after the event. Findings should be communicated and used to redesign future events. P15 stated, "After the competition, we should not only report the number of participants. We need to know which groups participated, who had less access, how satisfied people were, what incidents occurred, and—more importantly—whether people continued physical activity after the event."

Health legacy referred to anticipated physical, psychological, social, behavioral, and organizational consequences rather than outcomes measured directly in this qualitative study. Participants described improved fitness and reduced inactivity as desired physical legacies; less stress and greater happiness as psychological legacies; stronger cohesion and trust as social legacies; continued physical activity and healthier lifestyles as behavioral legacies; and stronger implementation capacity and institutionalization of health-oriented policy as organizational legacies. P12 described the intended legacy as something that continues after event day: people remain active, experience less stress, make healthier lifestyle choices, strengthen social trust and cohesion, and help organizations make health orientation a stable policy.

The model therefore treats monitoring and learning as a feedback loop, whereas health legacy represents an anticipated consequence of the wider process. Evidence generated from each event can inform subsequent governance arrangements, planning assumptions, resource allocation, design, and implementation. In this formulation, legacy is not assumed to occur automatically; rather, the participants proposed that follow-up opportunities, links to local groups and clubs, repeated activities, and organizational learning could create conditions that are more supportive of lasting effects.

Core category and theoretical integration

The core category—"transforming episodic competition into sustainable health-promoting participation"—integrates the four dimensions and captures the principal process described across the interviews. It was distinguished from "health legacy" in that the core category denotes the broader organizational and behavioral transition from an isolated event to a continuing participation system, whereas health legacy refers to anticipated consequences that may follow from that transition. The

core category has three defining features. First, it moves beyond championship logic: success is assessed not only by rank, record, or victory but also by access, positive experience, individual progress, and opportunities to continue. Second, it connects the event to lifestyle by linking participants with post-event programs, clubs, local groups, family activities, and follow-up health opportunities. Third, it institutionalizes health orientation through policies, budgets, operating procedures, and evaluation systems so that the health mission is not dependent on a single manager, campaign, or ceremonial occasion. The recurrence of these ideas across governance, design, implementation, monitoring, and legacy categories gave the core category its integrating role.

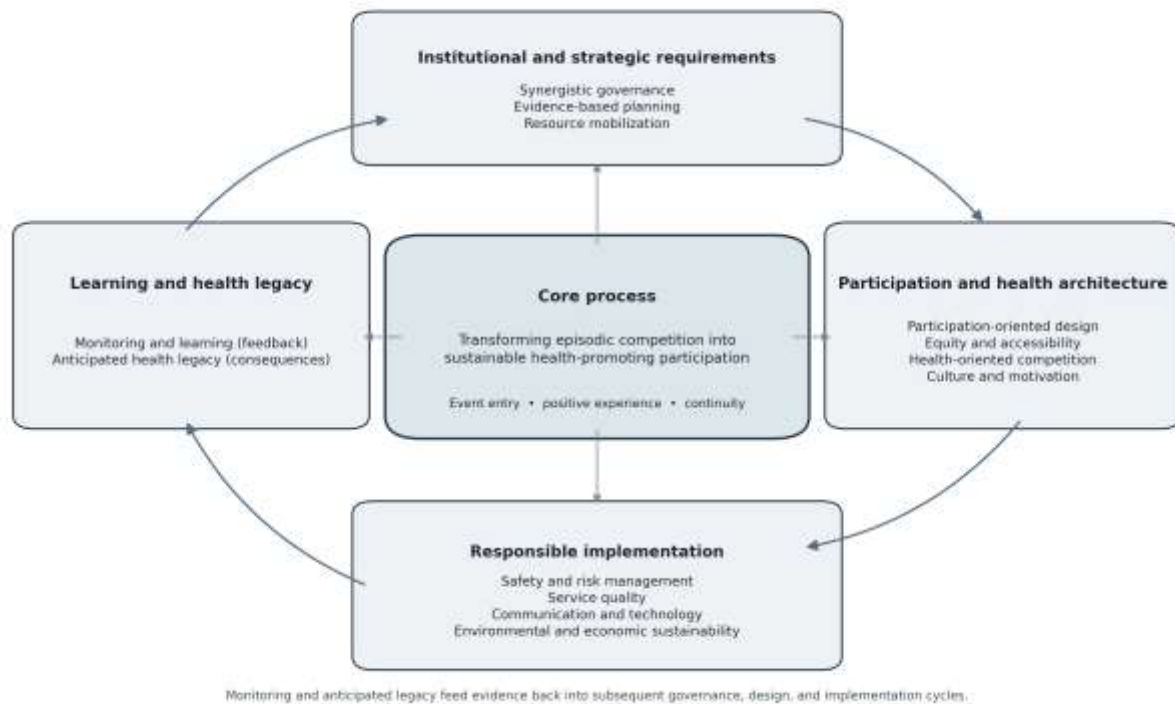


Figure 1. Emergent cyclical grounded theory model for health-oriented participatory sports competitions.

Discussion

This grounded theory study developed an expert-informed, context-sensitive explanation of how health-oriented participatory sports competitions may be organized to move beyond one-off events toward sustainable health-promoting participation. The central contribution is not simply the identification of multiple success factors but their integration into a process model. The four dimensions—institutional and strategic requirements, participation and health architecture, responsible implementation, and learning and health legacy—represent mutually reinforcing functions. The model should therefore be interpreted as a set of theoretically proposed relationships grounded in expert accounts, not as evidence that the identified conditions independently cause sustained participation.

The first dimension places governance and planning upstream of participant behavior. This is important because physical activity is shaped by system-level conditions as well as individual motivation (Bauman et al., 2012). The participants' emphasis on shared governance between sport, health, municipal, federation, and civil-society actors also resonates with evidence that sport organizations face institutional tensions when trying to expand from performance goals toward Sport-for-All objectives

(De Bock et al., 2022). Health-promoting sport frameworks similarly argue that organizational policy, leadership, stakeholder engagement, and health-supportive environments must be connected if health promotion is to become routine practice (Johnson et al., 2024). The present model extends this logic to participatory competitions by specifying joint responsibility, transparent decision-making, local health-needs assessment, contingency planning, and diversified resources as foundational conditions.

The second dimension reframes event design as an inclusion and health problem, not only a competition-format problem. Flexible rules, graded intensity, family and neighborhood formats, and recognition of personal progress are consistent with participation-pathway thinking, in which entry and retention depend on whether sport opportunities match people's capacities, preferences, and life circumstances (Eime et al., 2022). Equity findings also align with evidence that motives and barriers to sport differ across social backgrounds (Pedersen et al., 2021). In practical terms, a low registration fee is insufficient if transport, digital access, venue design, timing, or activity prescription still excludes potential participants. The model therefore treats economic, spatial, demographic, and digital access as linked elements of inclusive design.

Health orientation was not understood by participants as a promotional slogan. It required safe activity prescription, screening where appropriate, hydration, recovery, health education, psychological support, and sponsorship compatible with health objectives. This is consistent with public-health approaches that view sport as a setting in which health can be actively produced rather than passively assumed. The WHO physical-activity guidelines establish the health value of regular activity (Bull et al., 2020), but the present findings highlight that an event designed to promote health must also avoid preventable risk. Large-event safety guidance similarly emphasizes systematic planning for medical and environmental threats (Mountjoy et al., 2021). The contribution of the current model is to position these safety practices inside an integrated participation strategy rather than treating them as a separate compliance function.

The motivation category adds a psychosocial mechanism for continuity. Enjoyment, competence, autonomy, belonging, family support, and recognition of progress can make the event experience internally meaningful rather than externally imposed. This interpretation is compatible with self-determination perspectives in sport and exercise, which emphasize autonomy, competence, and relatedness as key foundations for high-quality motivation (Standage & Ryan, 2020). It also accords with systematic-review evidence showing that sport participation can contribute to mental-health and social outcomes when the sport environment provides supportive psychological and social experiences (Eather et al., 2023). The implication is that organizers should not measure success only through registration or completion statistics; the emotional and social quality of participation is part of the mechanism linking the event to future behavior.

The third dimension—responsible implementation—shows why good intentions can fail at the point of delivery. Participants described service quality, safety, communication, data protection, and sustainability as conditions for trust. This is particularly important for public and community events in which participants may have very different levels of sport experience. A technically demanding or administratively confusing event can reinforce the perception that sport is “not for people like me.” Conversely, a predictable, respectful, safe, and responsive experience can reduce uncertainty and support re-entry. This finding complements evidence from participatory sport events that social value develops through the lived experience of participation and the relationships built around the event (Parra-Camacho et al., 2021; Zhou & Kaplanidou, 2018).

The environmental and economic sustainability category broadens the meaning of responsible implementation. Continuity requires financial realism, but the model also links the health mission to environmental stewardship and local economic relationships. This is significant because an event cannot credibly promote health while disregarding avoidable environmental burdens or local community impacts. The participants' emphasis on local procurement, public transport, waste reduction, and cost control suggests that sustainability should be designed into the event model rather than added after logistical decisions are made. It also reinforces the larger idea that participatory events are embedded in communities and institutional systems, not isolated sport products.

The fourth dimension addresses the persistent "legacy problem" in event research: participation effects are often assumed or measured only over short periods. Reviews of sport-event participation have repeatedly called for better theory and longer-term evaluation (McVinnie et al., 2023; Teare & Taks, 2021). The present findings position monitoring and learning as a feedback mechanism that can connect one event cycle to the next. This distinction is important: monitoring is an organizational process, while continuation of physical activity is an outcome that should be examined rather than assumed. Organizers therefore need information on who was excluded, what participants experienced, what incidents occurred, and whether opportunities for continued activity were actually taken up. Such information can be converted into institutional learning and used to revise subsequent events.

The health-legacy category expands the outcome frame beyond physical-activity volume, but the identified legacies should be interpreted as anticipated outcomes proposed by participants rather than effects demonstrated in this qualitative study. The physical, psychological, social, behavioral, and organizational domains are consistent with evidence that sport participation can be associated with mental-health and social outcomes (Eather et al., 2023), that group-based sport can be associated with socio-psychological health (Tsuji et al., 2020), and that participatory events may generate social capital and community benefits (Zhou & Kaplanidou, 2018). Future longitudinal evaluation is needed to determine whether and under what conditions these anticipated legacies are realized in practice.

The core category ultimately changes the unit of analysis. Instead of treating the competition as a single-day intervention, the model treats it as one node within a recurrent health-promotion and participation system. This formulation also resolves the apparent overlap between sustainable participation and health legacy: sustainable health-promoting participation denotes the organizing process that links event entry, experience, follow-up, and institutional continuity, whereas continued physical activity is one anticipated behavioral manifestation of that process. For policymakers, the key question is therefore whether governance, resources, design, safety, services, communication, evaluation, and follow-up collectively create realistic opportunities for continued activity. For organizers, performance assessment should extend beyond attendance to the inclusiveness and quality of the participant experience and the availability of credible post-event participation pathways.

Practical and Policy Implications

The findings suggest several practical priorities for consideration by sport and public-health organizations. Intersectoral working groups involving sport authorities, health institutions, municipalities, federations, and civil-society organizations may help clarify responsibilities and align event objectives with local needs. Event calendars and formats can be informed by local health and participation data; graded activity options, accessible venues and transport, and adaptations for women, older adults, people with disabilities, people with chronic conditions, and lower-income groups can reduce participation barriers.

Health and safety protocols should address risk assessment, medical readiness, appropriate activity intensity, hydration, recovery, and safeguarding. Digital tools should complement rather than replace non-digital access. Finally, event evaluation should include a post-event pathway to local clubs, walking groups, municipal programs, family activities, or other continuing opportunities, together with monitoring of participation equity, satisfaction, incidents, and subsequent engagement.

Strengths and Limitations

A major strength of this study is the diversity of professional perspectives represented in the qualitative sample, including academic, managerial, municipal, health-promotion, coaching, and event-delivery expertise. Purposive and theoretical sampling, simultaneous data collection and analysis, constant comparison, memo writing, theoretical saturation, and a supplementary second-coder check supported conceptual development. The detailed hierarchy from initial codes to subcategories, categories, overarching dimensions, and a core category also provides analytic transparency. Several limitations should nevertheless be considered. First, the theory is grounded in expert perspectives and does not directly represent the experiences of event participants, non-participants, or underserved community groups. Second, the study did not directly observe event delivery or prospectively measure the physical, psychological, social, behavioral, or organizational outcomes described as health legacy; these outcomes are therefore theoretical expectations rather than demonstrated effects. Third, the sample was designed for conceptual depth rather than national statistical representativeness, so transferability within and beyond Iran should be evaluated in relation to local institutional and cultural conditions. Finally, expert interviews may be influenced by professional framing and by the interaction between interviewer and participant. Future studies should test the model with participant and non-participant perspectives, direct event observation, and longitudinal follow-up of post-event physical activity and health-related outcomes.

Conclusion

The grounded theory developed in this study suggests that health-oriented participatory sports competitions are best understood as components of a wider participation system rather than as isolated, one-day competitions. Four interconnected dimensions were identified: institutional and strategic requirements, participation and health architecture, assurance of responsible implementation, and learning and health legacy. Together, they explain the expert-defined process of transforming episodic competition into sustainable health-promoting participation. The findings do not demonstrate that these conditions automatically produce long-term health effects; rather, they specify a context-sensitive set of organizational mechanisms and anticipated outcomes that can guide future implementation and evaluation. In this framework, success extends beyond attendance or competitive results to include equitable access, a safe and positive participant experience, organizational learning, and credible pathways toward continued physical activity.

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Authors' Contributions

Authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

AI use statement

Artificial intelligence tools were used only to support language editing, translation refinement, formatting, and consistency checks. The authors take full responsibility for the accuracy of the data, analyses, interpretations, citations, and final content of the manuscript.

Ethical Considerations

Participation in the interviews was entirely voluntary. Audio recording was conducted only after obtaining participants' informed consent. To protect participants' privacy, all interview data were anonymized using alphanumeric identifiers (P1–P15), and no personally identifiable information is reported in the manuscript. Confidentiality was maintained throughout data collection, analysis, and the presentation of quotations and participant characteristics. The study involved only non-interventional interviews with experts and did not include any clinical or experimental procedures.

Transparency of Data

Reasonable requests for research materials should be directed to the corresponding author, subject to university policies and participant confidentiality.

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