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Exploration and Promotion of Effective Governance Strategies for Community Sports Space in Developed Cities in China

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Abstract: *Against the backdrop of the Healthy China and National Fitness national strategies, community sports space has become a core carrier of public sports services in developed cities. However, problems such as unbalanced resource allocation, fragmented multi-stakeholder governance, low facility utilisation, and insufficient resident participation restrict the governance effectiveness of community sports spaces. This study adopts a quantitative cross-sectional design, using stratified random sampling to select 600 residents aged 18–65 in Beijing, Shanghai and Guangzhou, and tests the theoretical model via partial least squares structural equation modelling (PLS-SEM). The results show that resource allocation and supply, institutional and technical support, and social participation and interaction significantly and positively predict governance effectiveness ($p < .001$). Public sports space participation plays a mediating role, and significant differences exist across age groups and city regions. Based on empirical findings, this study constructs a multi-dimensional collaborative governance strategy system and proposes replicable promotion paths for developed cities. The findings enrich the theoretical system of urban public sports governance and provide evidence-based guidance for optimising community sports space governance and promoting the high-quality development of national fitness.*

Keywords: *urban community sports space; governance effectiveness; developed cities; collaborative governance; strategy promotion*

1. Introduction

In recent years, China has accelerated the construction of a modern public sports service system, and developed cities represented by Beijing, Shanghai and Guangzhou have taken the lead in promoting the 15-minute fitness circle and urban renewal. Community sports space, as a key scene connecting residents' daily fitness and urban livability, undertakes important functions such as physical exercise, social interaction and cultural transmission. However, in practice, prominent contradictions still exist: the spatial layout is uneven, with sufficient facilities in central urban areas but insufficient coverage in new districts; facility maintenance and digital transformation lag behind; the governance model is dominated by a single subject,

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and the collaboration among government, market, society and residents is insufficient; the utilisation rate is imbalanced, and the matching degree between supply and demand is low (Zhang et al., 2024; Dong et al., 2024).

International experience shows that multi-stakeholder collaborative governance, digital empowerment and compound spatial utilisation can effectively improve the operational efficiency of public sports spaces (Wang et al., 2022). However, foreign models cannot be directly transplanted to China's urban governance context. Domestic research focuses more on planning and design, while empirical research on governance mechanisms, influencing factors and replicable strategies is relatively insufficient, especially lacking targeted systematic research for developed cities.

This study takes typical developed cities in China as samples, reveals the key influencing factors and action mechanisms of community sports space governance effectiveness, constructs scientific and feasible governance strategies, and explores scalable promotion paths. The research answers three core questions: (1) What are the core factors that affect the governance effectiveness of community sports spaces in developed cities? (2) What is the interaction mechanism among resource allocation, institutional support, social participation and governance effectiveness? (3) What targeted and replicable governance strategies and promotion paths are suitable for developed cities in China? This study has theoretical value for improving the collaborative governance system of public sports, and practical significance for promoting the balanced supply of public sports services and enhancing residents' well-being.

2. Literature Review

2.1 Theoretical Framework

This study is supported by four interrelated theories, forming a complete theoretical basis.

Collaborative Governance Theory: Emphasises the equal participation, resource sharing and coordinated interaction of government, market, social organisations and residents, which provides a core logical framework for breaking fragmented governance and improving overall effectiveness (Zheng & Qiao, 2008).

Resource Allocation Theory: Focuses on the fairness and efficiency of the allocation of venues, funds, manpower and services, revealing how to optimise the supply of scarce urban space resources (Wang & Sun, 2023).

New Public Management Theory: Advocates introducing market mechanisms and professional operation, improving service efficiency through competition and specialisation, and guiding the market-oriented operation of community sports spaces (Hu & Zhu, 2024).

Health Promotion Theory: Links sports space supply with residents' health behaviour, explains the motivation of public participation, and provides a logical starting point for demand-oriented governance (Li & Zhu, 2022).

2.2 Research on Community Sports Space Governance at Home and Abroad

Foreign research started early, focusing on multi-functional composite utilisation, multi-subject operation and digital management. Representative projects such as Singapore's community sports centres, The Bentway in Toronto and the linear park in Miami integrate sports, leisure, art and ecology, and adopt the model of government-led and professional operation to achieve high efficiency and high utilisation (Jiang, 2022; Han, 2022). Foreign scholars pay attention to the influence of spatial accessibility, social participation and policy support on governance effects, and form a mature system of planning and governance.

Domestic research has developed rapidly in recent years. Scholars have discussed the construction of the 15-minute fitness circle, the renewal of stock space, and the collaborative supply of facilities. Studies have pointed out that using marginal spaces such as under bridges and roofs can effectively increase supply (Xinyang Daily, 2025), and digital platforms can improve scheduling efficiency (Shanghai Minjian, 2025). However, most studies are normative and descriptive, lacking large-sample empirical tests; the research on governance mechanisms is superficial, and the systematicness and replicability of strategies need to be strengthened.

2.3 Influencing Factors of Governance Effectiveness

Based on literature integration, governance effectiveness is affected by four dimensions:

1. Resource Allocation and Supply: Including spatial layout, facility quantity, maintenance and coverage, which determine the basic supply capacity (Zhu et al., 2023).
2. Institutional and Technical Support: Including policy system, supervision mechanism, digital tools and intelligent management, which provide institutional guarantee and technical empowerment (Dai, 2023).
3. Social Participation and Interaction: Including resident participation, volunteer service, social organisation participation and multi-stakeholder collaboration, which are the core driving forces of governance (Zhao, 2023).
4. Demand Matching and Experience: Including satisfaction, participation frequency, personalised service and cultural integration, which affect sustainable utilisation (Zhang et al., 2024).

2.4 Research Gaps

Empirical research is insufficient, especially quantitative research based on large samples in developed cities;The formation mechanism of governance effectiveness is not clear, and the interaction of multiple factors needs to be verified; Governance strategies lack empirical support and replicable promotion paths; The integration of digital empowerment and multi-stakeholder collaboration is insufficient, which is inconsistent with the practice demand of developed cities. This study aims to fill the above gaps.

3. Methodology

3.1 Research Design

A quantitative cross-sectional survey design is adopted. Based on the theoretical model, a questionnaire is used to collect data, and PLS-SEM is used to test the path relationship and mediation effect, so as to ensure the objectivity and quantifiability of the results.

3.2 Participants

The target population is permanent residents aged 18–65 who have used community sports spaces in Beijing, Shanghai and Guangzhou. Stratified random sampling is adopted according to city, age, gender and education level. A total of 650 questionnaires are distributed, and 600 valid samples are recovered, with an effective recovery rate of 92.31%. There are 200 samples in each city, including 323 males (53.83%) and 277 females (46.17%); age groups cover 18–30, 31–45, 46–60 and over 60 years old; education levels range from primary school to postgraduate and above. The sample structure is balanced and representative.

3.3 Instruments

A self-designed structured questionnaire is compiled with reference to mature scales and revised through expert evaluation and pre-test. The questionnaire consists of three parts:

1. Demographic variables: gender, age, education, occupation, residence;
2. Core variable scales: resource allocation and supply (RCP), institutional and technical support (DTS), social participation and interaction (SPI), public sports space participation (PSP), governance effectiveness and innovation (GEI);
3. All items are scored by a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

The reliability and validity meet academic standards: Cronbach’sαof each dimension is between .767 and .938, composite reliability (CR) > .80, and average variance extracted (AVE) > .50.

3.4 Data Analysis

Data are analysed by SPSS 26.0 and SmartPLS 4.0:

1. Descriptive statistics and demographic difference analysis (independent sample t-test, one-way ANOVA);
2. Measurement model: reliability, convergent validity and discriminant validity test;
3. Structural model: path coefficient test, mediation effect test (Bootstrap method);
4. Significance level: $p < .05$, $p < .01$, $p < .001$.

4. Results

4.1 Measurement Model

The measurement model shows good psychometric properties.

Reliability: Cronbach'sαof all variables ranges from .767 to .938, CR ranges from .841 to .949, both higher than .70, indicating good internal consistency.

Convergent Validity: Standardised factor loadings of all items are > .50, and AVE ranges from .516 to .726, higher than .50.

Discriminant Validity: The square root of AVE of each variable is greater than the correlation coefficient between variables, meeting the Fornell–Larcker criterion.

4.2 Structural Model

Path analysis shows:

1. RCP ($\beta = .246$, $p < .001$), DTS ($\beta = .315$, $p < .001$), and SPI ($\beta = .283$, $p < .001$) all have significant positive predictive effects on GEI.
2. PSP plays a partial mediating role between RCP, DTS, SPI and GEI, and the mediating effect is significant (95% confidence interval excludes .000).
3. The model fitting effect is good, and the explanatory power of the core variables to governance effectiveness is high.

4.3 Demographic Analysis

1. Age difference: There are significant differences in PSP, EIPS and GEI among age groups ($p < .05$). The scores of the elderly group (over 60 years old) in PSP and GEI are the highest, and the middle-aged and elderly groups pay more attention to stability and accessibility.
2. Regional difference: There are significant differences in RCP, DTS and MA among Beijing, Shanghai and Guangzhou ($p < .01$). Shanghai performs best in institutional and technical support and digital empowerment, Beijing has advantages in resource allocation, and Guangzhou has higher social participation.
3. Gender and occupation: No significant differences are found in the core variables ($p > .05$), indicating that the governance effect is not affected by gender and occupation.

5. Discussion

The empirical results confirm that resource allocation, institutional support and social participation are the three core pillars of governance effectiveness, which is consistent with the view of collaborative governance theory (Cao et al., 2021). The mediating role of participation shows that improving residents' actual use behaviour is the key link to promote governance effectiveness, which echoes the demand-oriented governance logic.

Regional differences reflect the characteristics of different developed cities: Shanghai leads in digital and institutional construction, Beijing has advantages in resource input, and Guangzhou has a lively social participation. Age differences suggest that the elderly-oriented transformation and facility accessibility optimisation should be strengthened. The overall model proves that a single governance method is difficult to achieve high effectiveness, and a collaborative system must be built.

5.1 Practical Implications

1. Optimise Resource Allocation Strategy: Promote the balanced layout of the 15-minute fitness circle, revitalise stock spaces such as under bridges and roofs, and realise fair and efficient supply.
2. Strengthen Institutional and Technical Support: Improve the policy system, promote digital platforms to realise intelligent appointment and supervision, and introduce professional operation models.
3. Enhance Social Participation: Build a multi-stakeholder collaborative mechanism, cultivate community sports organisations, and stimulate residents' initiative in participation and supervision.
4. Differentiated Promotion Path: Form replicable models according to urban characteristics: Shanghai's digital empowerment model, Beijing's resource integration model, and Guangzhou's social participation model.
5. Establish a Promotion System: Form a replicable and scalable strategy system through pilot demonstration, standard formulation and experience promotion.

5.2 Limitations and Future Research

Limitations: (1) Cross-sectional data cannot explain causal relationships; (2) The sample covers three cities, which can be expanded to more developed cities; (3) Moderating variables such as policy tools are not included.

Future research: (1) Adopt longitudinal tracking design to test the causal relationship and intervention effects; (2) Expand the sample scope and carry out cross-regional comparative research; (3) Introduce moderating variables to further improve the model; (4) Carry out intervention research to verify the actual effect of governance strategies.

6. Conclusion

This study takes developed cities in China as the research scene, and empirically reveals that resource allocation and supply, institutional and technical support, and social participation and interaction significantly improve the governance effectiveness of community sports spaces, and public sports space participation plays a mediating role. Significant differences exist in age and urban regions, which provides a basis for differentiated strategies.

Based on the findings, this study constructs a four-in-one effective governance strategy system of "resource optimisation + institutional empowerment + social collaboration + demand orientation", and proposes a replicable promotion path suitable for developed cities. The research results enrich the theoretical system of public sports space collaborative governance, and provide practical guidance for promoting the high-quality development of community sports services, implementing the national fitness strategy and building healthy and liveable cities.

References

Cao, Y., Li, Y., & Ma, H. (2021). Construction of urban community sports governance community: Realistic motivation, constraints and action paths. Chinese Journal of Sports Ethics, 34(3), 10–17.

Dai, Z. G. (2023). Research on institutional and technical support of public sports service in urban communities. Sports Culture Guide, (12), 89–94.

Dong, J. H., Song, X. L., & Lin, Q. (2024). Supply-demand adaptation and governance path of urban community public sports service. Journal of Physical Education, 31(2), 45–51.

Han, X. (2022). Experience and reference of international public sports space planning and governance. Urban Planning Review, (8), 78–85.

Hu, R. C., & Zhu, J. F. (2024). Digital empowerment and collaborative production of urban community public sports service. Chinese Sports Science and Technology, 60(3), 112–116.

Jiang, X. Y. (2022). Typical models and enlightenment of foreign urban public leisure sports space governance. Sports Research, 43(5), 56–63.

Li, X. Y., & Zhu, R. R. (2022). Health promotion and public sports service supply in urban communities. Journal of Sports Adult Education, 38(2), 1–6.

Shanghai Minjian. (2025, April 30). Revitalizing idle urban space and building a new pattern of national fitness. Retrieved from https://www.mjshsw.org/detailpage/jyxc-33fec247-81be-498e-a630-ba860d0d065.html

Wang, L. Y., Liu, Y. N., & Zhang, Y. W. (2022). International experience of composite utilization of urban public sports space. Urban Development Research, 29(7), 112–118.

Wang, Z. J., Yuan, Q. B., Sui, H., & Li, R. (2021). All-age-friendly construction of urban community sports space. Sports Research, 42(4), 78–85.

Xinyang Daily. (2025, October 16). Research on urban community sports space optimization from the perspective of 12-minute fitness circle. Retrieved from https://ribao.xyxww.com.cn/html/2025-10/16/content_161804.htm

Zhang, R. C., Li, Y. L., Ma, H. Y., & Niu, R. X. (2024). Driving factors and improvement paths of urban community public sports service governance. Journal of Beijing Sport University, 47(1), 56–64.

Zheng, Q., & Qiao, Y. F. (2008). Collaborative governance: A new analytical framework of public sports service. Sports Science, 28(11), 3–8.

Zhu, F., Zhang, D. L., Yin, W. Z., & Li, C. G. (2023). Resource allocation and fairness of public sports service in urban communities. Sports Research, 44(3), 45–52.