

Harnessing Physical Training Resolve through the Modernization of Large-Scale Sports Venues in Selected Colleges in Henan Province, China



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ABSTRACT: The results of this study highlight the relationship between the modernization of large-scale sports venues and the physical training resolve of students in selected universities in Henan Province, China. The findings indicate that while the modernization of sports facilities generally improved public accessibility and provided students with better infrastructure, it did not significantly influence all aspects of physical training resolve. There were significant correlations between public accessibility and students' motivation to participate in diverse sports activities, as well as between government-market dynamics and the duration of physical training sessions. However, areas such as social influence, peer support, and psychological constructs did not show strong associations with the modernization efforts. The study also found that the physical training resolve of students varied based on their course of study, with certain disciplines showing higher engagement in specific types of sports and psychological benefits. Overall, the results suggest that while modernization enhances some aspects of physical training, a more comprehensive approach is needed to fully support students' physical engagement across all dimensions.

I. INTRODUCTION

The modernization of large-scale sports venues has become a critical focus in the development of sports infrastructure, particularly in rapidly urbanizing regions. As China continues to invest in and upgrade its sports facilities, understanding the impact of these modernized venues on sports participation among students is increasingly important. The relationship between the quality of sports infrastructure and the level of sports engagement is well-documented, with modern, accessible, and well-maintained facilities often leading to increased participation rates (Chen, 2019; Zhang et al., 2023). This study explores how the modernization of these venues influences sports participation among college students, particularly in terms of accessibility, government-market dynamics, spatial disparities, and the role of educational institutions.

Public accessibility to sports facilities is a significant factor influencing participation. The modernization of sports venues often includes improvements in access, making it easier for the general public, including students, to engage in physical activities. Studies have shown that improved access to sports facilities can lead to increased physical activity, which is essential for promoting public health (Gao et al., 2017). In the context of Henan City, understanding how accessible these modernized venues are to college students is crucial in assessing their impact on participation levels.

Government-market dynamics also play a pivotal role in the modernization of sports venues. The relationship between public funding and private investment can significantly influence the availability and quality of sports facilities. Research has highlighted the importance of effective government-market cooperation in ensuring the sustainable development and operation of sports venues (Zhang et al., 2013). In Henan, the balance between these dynamics is key to understanding how sports venues are developed and maintained, and how this affects student participation.

Spatial disparities in the distribution of sports facilities can lead to unequal access and participation opportunities. In China, urbanization has often led to uneven development, with some areas having more advanced sports infrastructure than others (Dong et al., 2023). Addressing these disparities through innovative financing solutions and targeted investments is essential for ensuring that all students, regardless of their location, have equal opportunities to engage in sports.

Finally, the role of educational institutions in promoting sports participation cannot be overlooked. Schools and colleges are often at the forefront of sports development, providing facilities, programs, and support for student athletes (Chen et al., 2022). The involvement of educational institutions in the modernization of sports venues can significantly enhance their impact on student participation, making it a key area of focus for this study.

This study aims to assess the impact of modernized sports venues on physical training resolve among college students in Henan City, China. By examining factors such as public accessibility, government-market dynamics, spatial disparities, and the

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role of educational institutions, the research seeks to provide insights into how these modern facilities are influencing student engagement in sports. Understanding these dynamics is essential for developing strategies to sustain and enhance sports participation, ultimately contributing to the health and well-being of the student population.

Research Question

Is there a significant relationship between the assessment of the respondents on the modernization of large-scale sports venue and the level of physical training resolve among the selected colleges in Henan City, China?

II. METHODOLOGY

The study used a quantitative comparative correlational research design to examine the impact of modernization of large-scale sports venues on physical training resolve among students in selected colleges in Henan City, China. The research involved collecting and analyzing numerical data, such as sports participation frequency, duration, and types, and students' assessments of factors related to the modernization of sports venues. The correlational aspect of the research design examined the relationships between the modernization of sports venues and physical training resolve levels, identifying potential predictors or influencing factors contributing to higher or lower levels of sports engagement. The study was conducted at three prominent educational institutions in Henan Province, China, with 320 selected college students enrolled in Physical Education courses.

III. RESULTS AND DISCUSSION

Table 1 Correlation Between Assessment of the Respondents on the Modernization of Large-Scale Sports Venue and their Level of Physical Training Resolve

Modernization of Large-Scale Sports Venue	Level of Physical Training Resolve	Computed r	Sig.	Decision	Interpretation
Public accessibility	Frequency of Participation	.087	.122	Accepted	Not Significant
	Duration of Participation	.066	.241	Accepted	Not Significant
	Type of Sports	.238**	.000	Rejected	Significant
	Motivation for Participation	.131*	.019	Rejected	Significant
	Social Influence and Peer Support	-.002	.968	Accepted	Not Significant
	Psychological Constructs	.026	.648	Accepted	Not Significant
	Health Outcomes	-.155**	.005	Rejected	Significant
Government-market dynamics	Frequency of Participation	.053	.349	Accepted	Not Significant
	Duration of Participation	.160**	.004	Rejected	Significant
	Type of Sports	.227**	.000	Rejected	Significant
	Motivation for Participation	.001	.990	Accepted	Not Significant
	Social Influence and Peer Support	.125*	.025	Rejected	Significant
	Psychological Constructs	.014	.806	Accepted	Not Significant
	Health Outcomes	.068	.225	Accepted	Not Significant
Spatial disparities	Frequency of Participation	-.095	.091	Accepted	Not Significant
	Duration of Participation	-.135*	.016	Rejected	Significant
	Type of Sports	.011	.847	Accepted	Not Significant
	Motivation for Participation	-.138*	.014	Rejected	Significant
	Social Influence and Peer Support	-.025	.660	Accepted	Not Significant
	Psychological	-.094	.095	Accepted	Not Significant

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	Constructs				
	Health Outcomes	-.081	.149	Accepted	Not Significant
Innovative financing solutions	Frequency of Participation	.096	.088	Accepted	Not Significant
	Duration of Participation	-.049	.382	Accepted	Not Significant
	Type of Sports	-.077	.170	Accepted	Not Significant
	Motivation for Participation	.049	.387	Accepted	Not Significant
	Social Influence and Peer Support	-.053	.344	Accepted	Not Significant
	Psychological Constructs	-.001	.993	Accepted	Not Significant
	Health Outcomes	-.091	.105	Accepted	Not Significant
	Role of educational institutions	Frequency of Participation	-.062	.265	Accepted
Duration of Participation		.030	.593	Accepted	Not Significant
Type of Sports		.014	.807	Accepted	Not Significant
Motivation for Participation		-.034	.543	Accepted	Not Significant
Social Influence and Peer Support		-.026	.639	Accepted	Not Significant
Psychological Constructs		-.130*	.020	Rejected	Significant
Health Outcomes		.038	.501	Accepted	Not Significant
Modernization of Large-Scale Sports Venue	Level of Physical Training Resolve	.001	.989	Accepted	Not Significant

The table presents the correlation analysis between various factors (such as modernization of large-scale sports venues, public accessibility, government-market dynamics, spatial disparities, innovative financing solutions, and the role of educational institutions) and physical training resolve or aspects of participation in sports, such as frequency, duration, type, motivation, social influence, psychological constructs, and health outcomes. Below is a brief interpretation of each section:

Public Accessibility

Frequency and Duration of Participation: Both show no significant correlation, meaning that public accessibility does not directly influence how often or how long individuals participate in physical activities.

Type of Sports: Shows a significant positive correlation ($r = .238, p = .000$), indicating that public accessibility affects the type of sports individuals choose.

Motivation for Participation: Also significant ($r = .131, p = .019$), suggesting that public accessibility influences individuals' motivation to engage in physical activities.

Health Outcomes: Shows a significant negative correlation ($r = -.155, p = .005$), meaning public accessibility might reduce health benefits under certain circumstances.

Government-Market Dynamics

Duration and Type of Participation: Both show significant positive correlations with duration ($r = .160, p = .004$) and type of sports ($r = .227, p = .000$), indicating that government-market dynamics affect how long individuals engage in sports and the type of sports they participate in.

Social Influence and Peer Support: This also shows a significant correlation ($r = .125, p = .025$), suggesting government-market dynamics impact peer support and social factors in sports participation.

Spatial Disparities

Duration of Participation and Motivation: Both show significant negative correlations with duration ($r = -.135, p = .016$) and motivation ($r = -.138, p = .014$), indicating that spatial disparities can hinder the duration of participation and decrease motivation for engaging in physical activity.

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Innovative Financing Solutions

All aspects (frequency, duration, type, motivation, etc.) show no significant correlations, indicating that innovative financing has minimal direct impact on how often, how long, or what type of sports individuals participate in, as well as on their motivation, peer support, or psychological constructs.

Role of Educational Institutions

Psychological Constructs shows a significant negative correlation ($r = -.130$, $p = .020$), suggesting that educational institutions may negatively affect the psychological experience or resolve of students in physical training programs. Other factors like frequency, type of sports, or motivation show no significant correlation.

IV. CONCLUSION

The analysis highlights the complex connection between the renovation of sports facilities and the dedication to physical exercise. While domains of physical training are significantly affected by certain aspects of modernity, including public accessibility and government-market interactions, numerous correlations remain inconsequential. This indicates that modernization efforts may be inadequate to reliably improve physical training determination, highlighting the necessity for a more holistic strategy that considers the wider social, psychological, and motivational elements affecting individuals' dedication to physical activity, alongside physical infrastructure.

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