



Research on the Mechanism of Cultural-Tourism-Sports Integration Empowering Active Aging: Promoting Healthy Longevity and Improving Quality of Life

Huang Yijie

Sichuan University of Science and Engineering, Zigong City, China
740486726@qq.com

Abstract. Population aging and the Healthy China initiative shift the focus of longevity from life extension to healthy living and high-quality lifestyles. The integration of culture, tourism, and sports offers a sustainable mechanism for active aging. This approach promotes physical activity, psychological well-being, social interaction, cultural identity, and supportive environments compared to traditional medical care. This paper employs literature analysis and theoretical interpretation guided by active aging, health promotion, social support, and cultural identity theories. It constructs an analytical framework connecting culture-tourism-sports integration with multidimensional mechanisms and improved life quality. It indicates that this integration facilitates the transition of older adults from passive care to active health management. Older adults shift from single-service dependence to diversified participation and quality-of-life improvement through five core mechanisms. These mechanisms include physical health promotion, psychological well-being enhancement, social participation expansion, cultural identity reinforcement, and environmental optimization. However, major challenges remain in current practical development. These obstacles include mismatched supply and demand, inadequate age-friendly design, fragmented interdepartmental coordination, limited digital empowerment, and insufficient utilization of ethnic cultural resources. This paper proposes developing age-friendly products, improving multi-actor governance, activating ethnic cultural resources, building intelligent service platforms, and strengthening community-based participation. These findings broaden the interdisciplinary study of longevity. They provide references for age-friendly society construction, Healthy China implementation, and the high-quality development of culture, tourism, and sports in ethnic regions.

Keywords: Culture Tourism and Sports Integration, Active aging, Healthy longevity, Quality of life, Cultural identity.

1 Introduction

Population aging is reshaping public health goals, social governance models and public service systems worldwide [1]. In emerging longevity societies, policy attention has shifted from merely extending older adults' lifespan to improving comprehensive later-life quality, covering functional competence, psychological resilience, social participation, cultural belonging and supportive living environments [3]. The active aging framework transforms elderly governance from passive care and risk compensation to capability cultivation, daily social participation and quality-of-life improvement [2]. It also clarifies that elderly well-being cannot be fully explained by medical treatment and welfare security alone, but relies heavily on diverse opportunities for physical movement, social interaction, learning, travel and meaningful community engagement [4]. Culture, tourism and sports have become key integrated fields for local development and public service innovation [6]. Cultural activities foster life meaning, memory and personal identity; tourism expands individual experience, spatial mobility and emotional renewal; sports promote regular physical activity, self-efficacy and healthy behavioral habits [4], [7]. Different from isolated fitness programs, single sightseeing products and one-way cultural displays, integrated cultural-tourism-sports development constructs composite immersive participation scenarios for older adults [6]. Integrating physical exercise, social interaction, cultural interpretation, spatial experience and systematic service support, such scenarios deliver unique practical value for advancing active aging and healthy longevity [2], [3]. Nevertheless, this potential value lacks systematic conceptualization in existing research [7]. Current studies separately discuss elderly sports, senior tourism, cultural participation, smart aging services and age-friendly communities, forming fragmented research outcomes [5], [7], [8]. They fail to explain the overall operational logic of cultural-tourism-sports integration as a complete participation system, and the internal mechanisms linking integrated participation to healthy longevity and life quality remain unclear [3]. Additionally, existing research tends to regard such integration as a universal solution, ignoring its conditional value determined by age-appropriate design, accessible environments, stable organizational support and matching service capacity [6], [8]. Against this research gap, this paper adopts a conceptual and policy-oriented analytical positioning rather than empirical causal evaluation [1]. It does not aim to verify universal causal effects of integrated services, but to construct an interpretable theoretical framework explaining how cultural-tourism-sports integration supports active aging under suitable conditions [2]. This paper addresses three core questions: how to locate integrated development within active aging and healthy longevity theories; what multi-dimensional mechanisms integrated participation employs to improve older adults' physical, psychological, social, cultural and environmental well-being; and what dilemmas and optimization directions exist in local governance practice [8]. This paper makes three key contributions. First, it clarifies the research positioning and constructs a testable conceptual framework for subsequent empirical research [7]. Second, it refines the internal mechanism logic by summarizing five interrelated but analytically independent empowerment pathways [6]. Third, it provides

targeted policy implications for age-friendly service design, collaborative governance, cultural resource activation, digital inclusion and community embedding, laying a rigorous theoretical foundation for future case studies, surveys and effect evaluation [5], [8].

2 Article Positioning and Literature Synthesis Approach

This paper adopts a narrative thematic literature synthesis method to consolidate the analytical framework. Literature selection focuses on four core themes: active aging and healthy longevity, elderly physical activity and sports development, senior tourism and cultural leisure participation, and age-friendly environments and collaborative public governance [2], [6]. Priority is given to recent policy-oriented studies focusing on elderly participation, health promotion, social support, cultural identity and environmental adaptation [1], [3]. The literature synthesis follows three standardized steps: identifying core concepts and theoretical propositions of active aging, health promotion, social support, cultural identity and environmental gerontology; comparing overlapping and fragmented research findings across sports, tourism, culture and community service fields; and reorganizing convergent themes into systematic mechanism categories [4], [7]. This framework is a theoretically guided induction rather than a strict systematic review or original empirical research, aiming to standardize conceptual definitions and generate testable research propositions [7]. This positioning clarifies the boundary of research conclusions. This paper does not argue that cultural-tourism-sports integration inevitably promotes healthy longevity. Instead, it proposes that standardized age-adaptive integrated participation facilitates active aging by increasing moderate physical activity, nurturing positive emotions, expanding social connections, enriching cultural meaning and optimizing living environments [2], [4]. These analytical pathways require further empirical verification across different regions, age groups, health conditions and service models [4], [5], [8].

3 Theoretical Basis and Analytical Framework

Active aging theory, centered on health, participation and security, subverts the stereotype of older adults as passive care recipients and affirms their sustainable social and cultural participation capacity. It advocates supporting older adults to maintain autonomy, social involvement and life meaning beyond disease prevention and dependency reduction, which aligns with the healthy longevity concept balancing lifespan extension and life quality improvement.

Health promotion theory indicates that individual health is shaped by behaviors, environments, social mobilization and public services. Monotonous exercise, inconvenient venues and lack of social interaction hinder sustainable elderly healthy behaviors. Cultural-tourism-sports integration serves as a scenario-based health

promotion model, embedding physical activity into attractive, meaningful and socially supportive scenarios to replace individual passive health management.

Social support and cultural identity theories explain the psychological and social value of integrated services. Emotional comfort, information acquisition, peer companionship and community recognition improve elderly participation willingness and subjective well-being, while cultural memory and intergenerational inheritance sustain their life value perception. Environmental gerontology supplements that sustained elderly participation relies on person-environment fit, with accessible routes, standardized signage, rest spaces and safe information systems as essential structural guarantees.

On this basis, this paper constructs a three-layer analytical framework of “integrated supply—participation mechanisms—active aging outcomes”. The supply layer covers coordinated provision of activity content, public spaces, organizational support and online-offline auxiliary services. The core mechanism layer includes five pathways: physical health promotion, mental well-being enhancement, social participation expansion, cultural identity deepening and environmental scene optimization. The outcome layer reflects improvements in healthy behaviors, life satisfaction, social embeddedness, cultural belonging and overall later-life quality. The interaction of the three layers is conditional and dynamic rather than linear and deterministic.

The core innovation of the framework is scenario integration, which distinguishes integrated development from simple industrial superposition. Sports activate physical functions, tourism enriches experiential perception, culture constructs spiritual meaning, and community environments ensure participatory continuity. Standardized organization and age-friendly design integrate these elements into stable support for active aging.

4 Mechanisms of Cultural-Tourism-Sports Integration Empowering Active Aging

4.1 Physical Health Promotion Mechanism

Integrated scenarios boost elderly moderate physical activity, improve exercise adherence and maintain physical function. Low-threshold activities including health walking, Tai Chi, guided stretching, traditional sports experience and low-intensity outdoor recreation effectively improve older adults’ cardiopulmonary function, balance, flexibility and daily living capacity. Different from rigid single fitness programs, integrated scenarios embed exercise into sightseeing, cultural interpretation and peer interaction, reducing elderly exercise burden.

The core logic lies in improving the sustainability and attractiveness of physical activity. Most older adults recognize the value of exercise but lack motivation, partners and suitable venues. Combining exercise with landscape experience, cultural storytelling and group activities endows sports with richer experiential and social significance, transforming occasional exercise into long-term healthy behavior.

Health benefits depend on scientific adaptive design. Activity intensity, route length, rest frequency and medical support should match physical differences among young-old, advanced-age and chronically ill elderly groups. This mechanism is essentially a process of physical activation, habit cultivation and functional maintenance under age-friendly and risk-controlled conditions.

4.2 Mental Well-being Enhancement Mechanism

Retirement adaptation, social role degradation, empty-nest life and shrinking social networks easily trigger elderly loneliness and low self-worth. Integrated cultural, tourism and sports activities relieve psychological pressure by providing novel experience, peer companionship and achievable participatory tasks, arousing positive emotions and a sense of achievement.

This mechanism acts through three channels: emotional regulation via pleasant scenarios and collective activities to reduce stress; self-efficacy improvement via skill learning and public participation to build confidence; narrative continuity via cultural memory inheritance to connect past experience with present life, realizing multi-dimensional psychological support beyond simple entertainment.

Psychological empowerment is context-dependent. Excessively commercialized, rushed and performance-oriented activities will increase elderly fatigue and anxiety. Only voluntary, comfortable and ability-matched participation can effectively enhance subjective well-being.

4.3 Social Participation Expansion Mechanism

Integrated development provides diversified low-threshold public participation channels including community cultural and sports events, volunteer services, study tours and intergenerational programs, expanding elderly interpersonal communication and social support resources.

Its core feature is social role diversification. Older adults transform from single service recipients into participants, organizers, cultural narrators and volunteers, breaking the social stereotype of elderly social withdrawal. Regular group participation realizes social re-embedding and reconstructs stable community social ties.

In regions with distinctive local and ethnic cultures, integrated activities build cross-age and cross-group interactive spaces, enabling older adults to become core nodes of community cohesion, enhance community trust and belonging, and fundamentally alleviate social loneliness.

4.4 Cultural Identity Deepening Mechanism

Integrated development transforms local history, traditional festivals, intangible cultural heritage and ethnic sports into daily participatory content, activating elderly life memories and strengthening cultural belonging.

This mechanism is particularly valuable amid rapid urbanization and lifestyle transformation, where traditional elderly life experience and local knowledge are easily marginalized. Providing platforms for older adults to display and inherit traditional culture recognizes their life value, enhances personal dignity and enriches later-life spiritual connotation.

Integrated development realizes the transformation from “static cultural viewing” to “living cultural experience” through interactive participation. It promotes cultural integration in multi-ethnic communities, while excessive commercialization and cultural distortion will weaken identity empowerment effects.

4.5 Environmental Scene Optimization Mechanism

Sustainable elderly participation relies on accessible, safe and friendly public spaces. Integrated development drives the construction of age-friendly facilities including slow walking trails, health parks, barrier-free viewing spaces, rest seats, standardized signage and emergency support systems, effectively lowering participation thresholds and improving environmental comfort.

Public spaces actively shape individual participation behaviors. Perfect environmental facilities transform occasional leisure activities into routine elderly participation, enabling community public spaces to serve as multi-functional platforms for fitness, communication and cultural expression.

This mechanism connects individual health promotion with spatial governance, proving that active aging requires systematic optimization of public spaces, facilities and service systems, making integrated development an important path to build longevity-friendly spatial ecology.

5 Practical Dilemmas in Current Development

Despite its theoretical and policy value, cultural-tourism-sports integration faces five practical constraints in grassroots practice, restricting the effective operation of empowerment mechanisms.

First, product age-adaptation is insufficient. Most integrated products are designed for young and middle-aged groups, focusing on short-term sightseeing and entertainment, ignoring elderly physical load tolerance, companionship needs and deep leisure demands. Superficial senior-friendly design fails to sustain long-term elderly participation.

Second, age-friendly infrastructure is uneven. Incomplete barrier-free facilities, insufficient rest nodes, unclear signage, inconvenient supporting facilities and inadequate medical emergency capacity form obvious participation barriers, especially for advanced-age and chronically ill older adults.

Third, collaborative governance is fragmented. Multiple involved departments and organizations face scattered responsibilities, insufficient information sharing and single industrial evaluation standards, failing to form a closed-loop service chain from demand assessment to service follow-up.

Fourth, digital empowerment lacks inclusiveness. Complex digital platforms, high operation thresholds and poor online-offline connection exacerbate the elderly digital divide, resulting in unequal public service access.

Fifth, local characteristic resources are underutilized. Rich traditional sports, festivals and heritage resources are only displayed seasonally, lacking normalized transformation and community embedding, failing to form long-term support for active aging.

6 Practical Implications

First, build a differentiated age-friendly product system. Adhere to the principles of accessible, willing and sustainable participation, develop low-intensity walking routes,

community micro-tourism, traditional sports experience and seasonal festival activities. Implement classified design based on elderly age, health status and preferences, and integrate supporting services such as transportation, rest and emergency response into overall planning.

Second, optimize multi-subject collaborative governance. Construct a government-led, community-embedded, market-participated governance system. The government undertakes overall planning and standard formulation; communities manage daily activities; markets provide innovative products; social organizations support volunteer services. Establish unified information sharing and evaluation mechanisms to avoid symbolic integration.

Third, activate local cultural resources scientifically. Transform traditional sports, folk festivals and intangible heritage into normalized age-friendly services, avoid commercialization and static display, and embed characteristic resources into low-threshold participatory scenarios to realize sustainable value transformation.

Fourth, realize inclusive age-friendly digital services. Optimize digital platforms with large-font interfaces, voice prompts and manual offline assistance, adhere to people-oriented service principles, and standardize health data management to protect elderly privacy and service fairness.

Fifth, strengthen community embedding and health communication. Take communities as the core carrier of active aging construction, connect integrated activities with elderly education and community public services, and popularize healthy longevity concepts through peer demonstration and situational experience to internalize healthy participation habits.

7 Conclusion

This paper redefines cultural-tourism-sports integration from a policy slogan to a systematic conceptual framework for active aging. It summarizes five interrelated but distinct empowerment mechanisms that improve elderly physical, psychological, social, cultural and environmental well-being, explaining the comprehensive advantages of integrated scenarios over single cultural, tourism or sports activities.

The core policy implication is that high-quality active aging requires comprehensive participatory life scenarios beyond basic medical and welfare security. Age-friendly products, accessible environments, collaborative governance, inclusive digital services and community embedding can jointly build integrated development into key participatory infrastructure for high-quality later-life development.

This is a conceptual policy-oriented study without empirical causal verification. The proposed mechanisms have theoretical rationality but show contextual differences in practical effects. Future research can adopt questionnaires, case studies, interviews and effect evaluation methods to test the mediating and moderating relationships of relevant variables, and explore the influence of regional institutional and cultural characteristics on participation effects. Accumulated empirical evidence will further improve the theoretical rigor of the empowerment mechanism and promote the transformation of research findings into practical aging governance policy tools.

References

1. Xu, X.W., Feng, X.L., Qiu, Y.J.: A comparative study on elderly sports policies in China, Japan and the United States from the perspective of active aging. *China Sport Science and Technology* 61(5), 32–41 (2025)
2. Yu, H., Liu, J.: Research on the development of “silver hair sports” from the perspective of active aging. *Sports Culture Guide* 2, 59–65 (2025)
3. Li, M., Xu, W.X.: Exploration on the value logic and practical direction of cross-border integration of physical care and nutrition for the elderly: from “healthy aging” and “active aging”. *Journal of Sport Science* 44(10), 48–57 (2024)
4. Guo, H.J., Cai, M.H., Ye, S.D.: A study on influencing factors and regional differences of physical exercise of Chinese elderly under the background of active aging. *Sports & Science* 45(5), 68–76 (2024)
5. Chen, C.Z., Wang, H.Y., Yu, W.Y.: The logical rationale and development path of smart sports services boosting “active aging”. *Journal of Wuhan Institute of Physical Education* 58(8), 34–41 (2024)
6. Liu, Q., Zhang, Q.R.: Research on supply-demand adaptation mechanism of sports and health integration for the elderly from the perspective of active aging. *Sports & Science* 44(6), 107–111 (2023)
7. Shang, Y., Qiu, Y.J.: Characteristics of active aging from the perspective of serious leisure sports: a scoping review. *China Sport Science and Technology* 59(11), 58–68 (2023)
8. Da, K.N.: The due logic, practical dilemmas and practical strategies of smart sports services for the elderly in communities from the perspective of active aging. *Journal of Beijing Sport University* 46(10), 120–129 (2023)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

