Scientific and Social Research, 2026, Volume 8, Issue 10
https://bbwpublisher.com/journal/SSR
Online ISSN: 2981-9946
Print ISSN: 2661-4332

# Shortcomings of Leisure-Oriented Elderly Care Services for Disabled Older Adults in Dalian from the Perspective of Demand Stratification and Urban Renewal-Oriented Optimization Strategies

**Kexin Liu***

Liaoning University of International Business and Economics, Dalian116000, Liaoning, China

***Corresponding author:** Kexin Liu, 2420296337@qq.com

**Copyright:** © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** Dalian has entered a deeply aging society. As a special group bearing the dual identities of old age and disability, disabled older adults have long-neglected demands for leisure-oriented elderly care services. Based on the Hierarchy of Needs Theory and Multiple-Identities Demand Theory, this paper constructs a demand-stratified analytical framework covering "physiological-safety needs, belonging-emotional needs, respect-self-actualization needs." The paper examines the practical foundations and supply-side shortcomings of leisure-oriented elderly care services for disabled older adults in Dalian. From the perspective of urban renewal, this paper puts forward optimization strategies: promoting age-friendly and barrier-free spatial renovation by the unit of life circles, developing stratified and categorized leisure-oriented elderly care service supply, and strengthening multi-agent collaboration and digital empowerment. It aims to provide references for improving the quality and efficiency of leisure-oriented elderly care services for disabled older adults.

**Keywords:** Urban renewal; Disabled older adults; Leisure-oriented elderly care; Demand stratification

**Online publication:** November 25, 2026

## 1. Problem statement

Population aging constitutes a long-term structural feature of China's social development. According to the Fourth National Sampling Survey on the Living Conditions of Urban and Rural Older Adults, approximately 40.63 million older adults in China are disabled or semi-disabled, accounting for 18.3% of the elderly population. More than 60% of senior households have living environments incompatible with age-related physical changes. Amid overall population aging, disabled older adults — a cross-sectional group with

both elderly and disabled identities — keep growing in number and have increasingly complex demands. They represent a key target group for the construction of the elderly care service system. According to data from the China Disabled Persons' Federation, among rural registered persons with disabilities alone, 14.168 million are aged 60 and above [1]. When urban older adults with disabilities are included, the total figure is even larger. Against the backdrop of common prosperity and equal access to basic public services, safeguarding disabled older adults' right to higher-level leisure-oriented elderly care services carries important livelihood-related and policy-oriented significance. Whether this group can equally access leisure, cultural, and social-interaction services beyond basic livelihood support directly determines the outcomes of the active-aging strategy and the building of an age-friendly society.

The uniqueness of disabled older adults lies in the overlapping of demands shaped by multiple identities. Yao Yuan notes that older adults with disabilities carry multiple markers, including age, disability, and gender. Their demands overlap across life-oriented, survival-oriented, and development-oriented dimensions. Existing social policies targeting single-category groups can hardly address such overlapping demands [2]. In terms of demand priority, medical services and assistance, assistive devices, and rehabilitation training rank high, whereas development-oriented demands such as cultural services and information accessibility fall behind. Leisure- and spiritual-culture-related services easily become policy blind spots. Meanwhile, the current elderly-care service system focuses largely on basic daily care and medical care. Standardized services for all older adults lack segmentation by demand hierarchy and disability type. Constrained by physical and informational barriers, disabled older adults find it harder to obtain equal leisure-oriented elderly care services, and thus become a neglected segment in the elderly-care service chain.

Dalian ranks high among China's sub-provincial cities in terms of aging. By the end of 2023, Dalian had 1.8269 million registered residents aged 60 and above, making up 30.01% of the registered population; 1.3416 million residents were aged 65 and above, accounting for 22.04% [3]. By the end of 2024, the number of residents aged 60 and above rose to 1.9049 million, representing 31.27% of the registered population — the highest proportion among 15 sub-provincial cities [4]. The large and continuously expanding elderly population, coupled with the complex multi-identity-shaped demands of disabled older adults, imposes higher requirements on Dalian's leisure-oriented elderly care services. At the same time, Dalian is advancing urban renewal through policies such as urban-village renovation and old community regeneration. It also strives to develop the silver-economy sector and integrate culture-tourism-commerce-elderly-care industries [5]. This creates a valuable window of opportunity to reshape leisure-oriented elderly-care service spaces and remedy service shortcomings for disabled older adults.

This paper addresses the following questions: From the perspective of demand stratification, what are the shortcomings of leisure-oriented elderly care services for disabled older adults in Dalian? What optimization paths can urban renewal deliver? To answer these questions, this paper builds a demand-stratified analytical framework, investigates practical foundations and service shortcomings, and proposes targeted optimization strategies from the urban-renewal perspective.

## 2. Analytical framework: Demand stratification of leisure-oriented elderly care services for disabled older adults

### 2.1. Definition of core concepts

Disabled older adults refer to people aged 60 and over who suffer from physical or psychological functional

impairments that create barriers in daily life and activities. They bear dual attributes of the elderly population and the population with disabilities.

Leisure-oriented elderly care services denote services provided for older adults that focus on recreation, cultural-sports activities, social interaction, and cultural participation. As higher-level components of elderly-care services beyond basic daily care and medical treatment, they serve as vital carriers for meeting older adults' spiritual needs and realizing active aging. For disabled older adults, such services must satisfy their general leisure demands while overcoming physical, sensory, and informational barriers caused by disabilities. Therefore, they feature stronger particularities and cannot be simplified as ordinary leisure services for the general elderly population.

## 2.2. Application of the demand-stratification perspective

The demand-stratification perspective originates from Maslow's Hierarchy of Needs Theory, which divides human needs from low to high into physiological, safety, love-belonging, esteem, and self-actualization layers. This theory has been widely adopted in research on elderly-care service supply. Relevant studies construct analytical frameworks for community-home-based elderly-care service quality from multi-dimensional stakeholders including governments, communities, and older adults, or classify older adults' care demands into basic and general levels [6–7]. Research focused on older adults with disabilities further reveals their multi-identity characteristics: older adults with disabilities carry markers of age, disability, gender, and so forth, and their demands overlap across life-oriented, survival-oriented, and development-oriented dimensions. Among twelve categories of demands for this group, development-oriented demands such as leisure and culture rank noticeably lower than basic-level demands such as medical treatment and rehabilitation.

Synthesizing existing studies, this paper divides demands for leisure-oriented elderly care services for disabled older adults into three progressive tiers: (1) Physiological-safety layer: preconditional demands for basic activities, including barrier-free mobility, rehabilitation care, and safety protection. (2) Belonging-emotional layer: social-interaction-centered demands for leisure-based socializing, emotional comfort, and community belonging. (3) Respect-self-actualization layer: higher-level demands for cultural-leisure participation, value realization, and social respect.

The three tiers are not isolated from one another; they progress step-by-step and mutually support each other. It should be noted that demand stratification does not mechanically categorize disabled older adults. Instead, it serves as an analytical tool to identify differentiated needs and optimize resource allocation. Optimizing leisure-oriented elderly care services should guarantee the first two layers while striving to satisfy higher-level demands, and deliver differentiated supply according to disability types and severity. Furthermore, given the dual elderly-and-disabled attributes of this group, leisure-service design must embed supporting conditions such as accessibility and rehabilitation support. Insufficient basic-service provision would block the fulfillment of higher-level demands.

## 2.3. Practical foundations of leisure-oriented elderly care services for disabled older adults in Dalian

Dalian has initially established an elderly-care service system integrating home-based, community-based, and institutional services, and combining medical care with health-oriented care. By the end of 2023, the city had 391 elderly-care institutions with 45,000 beds. District-, sub-district-, and community-level elderly-care

service facilities achieved full coverage, delivering more than 200,000 person-times of home-based elderly-care services annually. A visiting-and-caring mechanism for special-group older adults has been put in place [8]. The city runs 403 elderly-care institutions and has built 7,000 home-based elderly-care beds, providing "12+X" home-based services including day-care, meal assistance, bathing assistance, mobility assistance, and medical assistance. Meanwhile, Dalian promotes the construction of a smart elderly-care information platform [9]. At the district level, authorities in Shahekou District and other districts have upgraded home-based elderly-care service centers in old residential compounds, and leveraged Party-mass service centers and cultural-sports centers to deliver elderly-care services [10]. In terms of leisure and spiritual-cultural services, Dalian develops new health-care-oriented residence formats such as migratory-style recuperation and art-appreciation-based health-care relying on marine resources, and promotes the integrated development of culture-tourism-commerce-elderly-care industries, forming an industrial and scenario-based foundation for diversified leisure-oriented elderly-care services. In addition, Dalian pushes forward age-friendly community construction, incorporating age-adaptation, accessibility, and leisure facilities into public-space planning for communities, so as to continuously consolidate hardware foundations for leisure-oriented elderly-care services.

In the field of urban renewal, Dalian strengthens accessibility construction of public infrastructure through old community renovation and urban village reconstruction. The city has opened four senior-friendly bus routes, deployed 988 low-floor, low-entry and ramp-equipped barrier-free buses, and installed more than 250 elevators. It planned to complete age-adaptation renovations for 3,500 households of financially vulnerable older adults in 2025. According to the 2024 Dalian Municipal Government Work Report, 26 urban-village-renovation projects covering 12,400 households were implemented; 920 back-alley lanes were renovated and upgraded, and 121 pocket parks were built. Dalian's 14th Five-Year Plan also includes phased old-community renovation and elevator installation as priorities for improving human settlements. Nationwide, by the end of 2023, barrier-free home-renovation projects had been completed for 880,800 severely disabled persons in difficulty, among whom 411,900 were older adults with disabilities. A total of 999 national-model age-friendly communities were named [11]. These facts demonstrate that age adaptation and accessibility renovations are rolling out nationwide, yet still fall short relative to the large size of the disabled older-adult population.

Overall, Dalian boasts high coverage of elderly-care facilities and intensive urban-renewal efforts, laying sound foundations for leisure-oriented elderly care services for disabled older adults. Nevertheless, viewed through the lens of demand stratification, existing supply concentrates largely on basic care. Supply for higher-level demands such as leisure, culture, and social interaction for disabled older adults remains inadequate. Services are not segmented according to disability type or severity, and accessibility of leisure facilities needs improvement. The general characteristics are "emphasis on basic care while neglecting leisure-health-care; emphasis on hardware investment while neglecting software-driven services."

## 3. Shortcomings of leisure-oriented elderly care services from the perspective of demand stratification

### 3.1. Physiological-safety layer: Insufficient supply of accessibility and rehabilitation-care services

A barrier-free environment serves as the prerequisite for disabled older adults to access leisure services

and forms the bottom-line guarantee for preconditional demands. Although Dalian has promoted barrier-free buses, ramps, and elevator retrofits, coverage remains limited. Nationwide, by the end of 2023, barrier-free home renovations were completed for 880,800 severely disabled persons in difficulty, among whom only 411,900 were older adults with disabilities — far insufficient given the large-scale target population. Leisure venues commonly suffer from inadequate barrier-free passages, handrails, rest seats, and accessible restrooms. Disabled older adults can hardly reach and stay in leisure spaces independently, which hinders their participation in leisure activities. Meanwhile, rehabilitation training and assistive-device adaptation services for disabled older adults are mostly confined to medical-treatment scenarios. Poor linkage with leisure-related scenarios reduces the accessibility of leisure-oriented elderly-care services.

### 3.2. Belonging-emotional Layer: Shortage of leisure-social-interaction spaces and services

Disabled older adults have prominent demands for leisure-driven socializing and emotional comfort. Research shows that the number of empty-nest and solitary older adults nationwide reached 118 million in 2020 [12]. Loneliness-related emotional needs are widespread among the elderly. A gap exists between standardized service provision and personalized demands in elderly-care services. Disabled older adults have rigid demands for medical care and assistive-device adaptation, yet their social-interaction and emotional needs are more likely to be overlooked. Dalian's three-tier elderly-care service facilities prioritize basic care. The supply of leisure, social-interaction activities, group events, and psychological counseling tailored for disabled older adults is insufficient. Constrained by poor accessibility, community cultural-sports centers cannot fully serve disabled older adults, resulting in reduced social participation and intensified loneliness. Their belonging- and emotion-related demands cannot be effectively met. In Dalian's local context, many disabled older adults live alone or semi-alone. Communities rarely organize regular recreational activities for them. Emotional-support services remain fragmented and occasional, failing to deliver stable and sustainable leisure-social-interaction supply.

### 3.3. Respect-self-actualization layer: Restricted participation in cultural-leisure activities

According to the Hierarchy of Needs Theory, older adults generate demands for respect and self-actualization after basic needs are satisfied. Among twelve categories of demands for older adults with disabilities, development-oriented demands such as cultural services and information accessibility rank low in priority. This reflects long-term supply shortages rather than low importance [13]. Suffering from physical limitations and informational barriers, disabled older adults face obstacles to equal participation in cultural lectures, recreational sports, and volunteer-service programs. Their demands for self-actualization and social respect are poorly fulfilled, leading to generally low quality of spiritual life. Such a survival-oriented rather than development-oriented supply pattern fails to fully safeguard disabled older adults' sense of social value and dignity.

### 3.4. Mismatch between supply and demand: disjuncture between stratified demands and standardized supply

Fundamentally, the core shortcoming of Dalian's leisure-oriented elderly-care services for disabled older adults lies in structural supply-demand mismatch. On the one hand, disabled older adults have multi-identity-shaped, multi-layered, and highly heterogeneous demands. On the other hand, existing services are mostly standardized offerings for all older adults, lacking stratified and categorized design aligned with demand

hierarchies and disability types. Older adults with disabilities are not a homogeneous group. Demands for leisure services vary significantly with age, disability type, and severity. Dalian's leisure-oriented elderly care supply has not adequately reflected such heterogeneity. This creates a paradox where target groups cannot access suitable services while some services go unused, undermining both supply efficiency and equity. The mismatch is especially salient for leisure-oriented elderly care services: leisure services feature strong personalization and experiential qualities and resist uniform standards. Moreover, disabled older adults with different disabilities have vastly different requirements for leisure service carriers and formats. Without stratified design, even adequate facility and service supply cannot truly benefit target groups.

## 4. Optimization strategies from the urban-renewal perspective

Urban renewal provides systematic approaches to resolve the above-mentioned shortcomings. Existing research proposes building a three-dimensional framework of "spatial adaptation-precise service delivery-multi-stakeholder collaborative governance," which can be implemented through full-scenario age-friendly renovation, stratified-categorized service supply, and multi-agent collaborative governance.

### 4.1. Spatial dimension: Promote age-friendly barrier-free renovation centered on life circles

Embed leisure-oriented elderly-care services for disabled older adults into spatial reconstruction during urban renewal.

First, allocate leisure-, cultural-sports-, and service-related facilities based on the 15-minute life circle for disabled older adults, so that facilities are locally embedded and within walking distance. Ensure public-transport connections and health stations within the 15-minute walking radius.

Second, make age adaptation and accessibility renovation mandatory content for old-community reconstruction, urban-village renewal, and pocket-park construction. Target the elimination of mobility-, operation-, and sensory-information-related barriers. Prioritize flat-floor elevator installation, ramp and anti-slip pavement construction, dual-sided handrails, accessible restrooms, and information-prompting facilities.

Third, revitalize stock-space resources through community micro-renewal. Repurpose old factories, building overhead floors and idle premises into recreational activity rooms and health-care spaces for disabled older adults, so that spatial reconstruction drives service upgrading. Such renovations should be coordinated with existing elderly-care-facility retrofits to avoid redundant construction. Meanwhile, install accessible signs, voice prompts, and barrier-free information services to realize the transition from physical-facility accessibility to service accessibility.

### 4.2. Service dimension: Develop stratified and categorized leisure-oriented elderly-care service supply

Design differentiated services in accordance with demand stratification. At the physiological-safety layer, provide rehabilitation training, assistive-device adaptation, and safety protection services to underpin leisure activity participation. At the belonging-emotional layer, organize leisure social interaction events, group recreational activities, and psychological counseling to alleviate loneliness. At the respect-self-actualization layer, launch cultural lectures, art recreation programs, and volunteer participation projects to meet self-actualization demands.

Adopt a closed-loop mechanism of "demand assessment-service matching-effect feedback" [14]. Provide adapted support, including braille, sign language interpretation, and barrier-free information, for different disability types and severity. Shift service delivery from standardized provision to stratified personalized supply [15]. Incorporate leisure-oriented elderly-care services into home-based elderly-care beds and home-care service catalogues to form menu-style customizable service lists. In practice, embed demand stratification into elderly-care-service demand assessment. Professional practitioners shall conduct personalized assessments combining disability type, self-care capacity, and interests, so as to avoid one-size-fits-all supply and improve service matching degree and satisfaction [16].

### 4.3. Governance dimension: Strengthen multi-agent collaboration and digital empowerment

Optimizing leisure-oriented elderly-care services for disabled older adults involves multiple government departments, including civil affairs, housing, urban-rural development, federation of persons with disabilities, culture, tourism, and health authorities. A cross-department collaborative governance mechanism oriented toward multi-identity-related demands should be established.

First, integrate leisure-oriented elderly-care services into silver-economy policies and "care-for-the-elderly-and-children-friendly" initiatives. Pool fiscal, social-sector, and market resources, and build a diversified funding-security system combining government subsidies, resident payments, and market investment.

Second, rely on smart elderly-care information platforms to accurately identify leisure-related demands of disabled older adults and push matched services. Apply digital technologies to reduce informational and operational barriers, and refine service accessibility and granularity [17].

In addition, implement participatory design and community-designer systems. Encourage professional social workers, volunteers, and disabled persons organizations to get involved, forming a government-led multi-stakeholder co-construction-and-sharing pattern, so that leisure-related demands of disabled older adults can be identified and responded to. Promote inter-generational integration and community building via youth-elderly mutual-aid and volunteer companionship activities to strengthen social connections of disabled older adults. Include disabled older adults' leisure participation in community governance and public service performance assessment to form regular institutional safeguards.

## 5. Conclusion

Disabled older adults bear dual markers of old age and disability, and their demands for leisure-oriented elderly-care services feature multi-layered and multi-identity-driven overlapping characteristics [18]. From the demand stratification perspective, shortcomings of Dalian's leisure-oriented elderly-care services for disabled older adults are reflected in inadequate accessibility guarantees, insufficient leisure-social-interaction support, and limited cultural participation opportunities. Essentially, these stem from a structural mismatch between stratified demands and standardized supply. Urban renewal delivers systematic opportunities for resolving such mismatch through spatial reconstruction, service upgrading, and governance collaboration. In the future, during urban renewal practices, Dalian shall promote age-friendly barrier-free renovation based on life circles, develop stratified and categorized leisure-oriented elderly care service supply, and strengthen multi-agent collaboration and digital empowerment. In this way, disabled older adults can achieve secure livelihoods, joyful later life experiences, and self-fulfillment at higher levels, and share the fruits of active-

aging development.

Optimizing leisure-oriented elderly-care services for disabled older adults constitutes a long-term systematic project. It requires sustained spatial investment from urban renewal, as well as coordinated support from service philosophy transformation, institutional mechanism improvement, and digital technology application. This paper carries out framework-oriented analysis mainly based on publicly available data and literature. Further empirical investigations are needed to verify and deepen understandings of differentiated demands among Dalian's disabled older adults and renovation program outcomes.

## Funding

Grant No.2026XJLX008

## Disclosure statement

The author declares no conflict of interest.

## References

[1] Lu PS, 2026, Integration Path of Urban Renewal and Spatial Structure Optimization under the Background of Smart City. Intelligent Building & Smart City, 2026(9): 84–86.

[2] Tian XH, 2026, Research on Dilemmas and Optimization Paths for Improving Living Quality of Old Residential Communities under the Background of Urban Renewal — In-depth Discussion Based on Practical Contradictions in Grassroots Governance. Jushe, 2026(27): 191–194.

[3] Mao HH, 2026, Research on Optimization Countermeasures of Community Inclusive Elderly Care Services Based on Cost-Benefit Analysis. Shanghai Real Estate, 2026(10): 24–27.

[4] Guan YL, Li XH, 2026, Liaoning Actively Builds an Age-Friendly Society. Liaoning Daily, October 16, 2026, 2.

[5] Wen LJ, 2026, Smart Elderly Care Comes to Senior Citizens: An Ongoing Age-Friendly Transformation. Legal Daily, October 17, 2026, 4.

[6] Hu YF, 2026, Realization Path for the High-Quality Development of Smart Health Elderly Care Industry Driven by New Quality Productivity. Science Technology and Industry, 26(19): 44–51.

[7] Zhu LT, Yu F, 2026, From "Aging Pressure" to "Longevity Dividend" — Theoretical Framework, Operation Mechanism and Deepening Path of the Silver Economy. Journal of Qinghai Minzu University (Social Sciences Edition), 1(12): 10–19.

[8] Li WZ, Xu XY, Ma YC, et al., 2026, Technical Framework and Multi-Scenario Application of AIGC Empowering Public Space Renewal in Old Urban Areas. Shanghai Land & Resources, 47(3): 151–161.

[9] Hu Y, 2026, Analysis on Reconstruction Design Methods of Existing Buildings under the Background of Urban Renewal. China Architectural Decoration, 2026(18): 70–72.

[10] Xu YY, 2026, Demand Stratification and Survival Test for Increment Tracks. Agricultural Machinery Market, 2026(9): 44–46.

[11] Sun YF, 2025, Optimization Path of Urban Planning from the Perspective of Old Urban Area Renewal. China Urban Planning Knowledge Database, 23(11): 30–33.

[12] Yang JY, Wang K, 2026, Research on Practical Dilemmas and Feasible Paths for the High-Quality Development of the Smart Elderly Care Industry Empowered by New Quality Productivity. China Management Informationization, 29(18): 108–111.

[13] Cheng Q, Long ZY, Li YH, 2026, Research on Spatial Allocation Strategy of Community Embedded Elderly Care Service Facilities. Shanxi Architecture, 2026, 52(20): 51–54. https://doi.org/10.13719/

j.cnki.1009.6825.2026.20.011

[14] Li Q, Deng XM, 2026, Research on Influencing Factors and Strategies of Fluctuation in the Elderly's Willingness for Smart Elderly Care and Demand Barriers. Neijiang Science & Technology, 47(9): 139–141.

[15] Wang Y, Jing HF, Wu PJ, et al., 2026, Expert Consensus on Multidisciplinary Comprehensive Intervention Path for Toilet Falls of Disabled Elderly and People with Disabilities. Medical Journal of the Chinese People's Armed Police Forces, 37(8): 645–654.

[16] Hu HW, Liu TS, 2025, Stratified Adaptation: Research on Optimization of Multi-level Medical Security System Oriented to Health Needs. China Medical Insurance, 2025(10): 51–64.

[17] Sun YK, 2024, Rural Disabled Elderly Get Out of 30 Year Plight. China Social Work, 2024(36): 41–42.

[18] Zhang KY, Guo Q, Wang S, et al., 2026, Research on Supply Demand Matching of Nanjing Embedded Elderly Care from the Perspective of Demand Stratification. Village Director, 2026(4): 212–214.

**Publisher's note**

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.