ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

Research on the Current Situation and Future Paths of Digital-Intelligent Development in Dalian's Elderly Care Industry

Ruoyun Pang

School of Management, Liaoning University of International Business and Economics, Dalian, Liaoning, China
pangruoyun@luibe.edu.cn

Abstract: *Population aging has become a major challenge for China's social development. Dalian, as an important coastal open city in Northeast China, is facing even more severe aging pressure. According to the latest data from the Seventh National Population Census (the Seventh Census), the population aged 60 and above in Dalian is 1,841,190, accounting for 24.71% of the total population; among this group, the population aged 65 and above is 1,257,193, making up 16.87%. Dalian has far exceeded the internationally recognized standard for a "deeply aging society" (where the population aged 65 and above accounts for 14%), leading to increasingly prominent pressure on the supply of elderly care services. Against this backdrop, digital-intelligent technologies have become a key means to address the imbalance between supply and demand of elderly care resources and improve the quality of elderly care services. Based on field research and policy analysis, this paper systematically sorts out the current characteristics of digital-intelligent development in Dalian's elderly care sector, analyzes the main challenges currently faced, and proposes future development paths by drawing on advanced experiences at home and abroad. It aims to provide theoretical reference and practical guidance for promoting the modernization of Dalian's elderly care service system.*

Keywords: *Elderly Care Industry, Smart Elderly Care Platforms, Digital Divide, Elderly Care Talent Cultivation*

1. Analysis of the Current Situation of Digital-Intelligent Development in Dalian's Elderly Care Industry

The digital-intelligent construction of Dalian's elderly care industry has entered a development stage driven by both policies and technological applications, forming a multi-level development pattern with municipal-level platforms as the core, district/county-level networks as the support, and institutional practices as highlights.

1.1 Policy Level

The Dalian Municipal Government has incorporated the construction of a smart elderly care service system into key livelihood projects, and advanced the implementation of policies through multi-departmental collaboration. As the leading authority, Dalian Municipal Bureau of Civil Affairs has joined hands with the Municipal Bureau of Industry and Information Technology, Municipal Bureau of Human Resources and Social Security, and Municipal Health Commission to jointly promote the development of smart elderly care services, forming a working mechanism characterized by "government leadership, inter-departmental coordination, and social participation". This mechanism provides a solid institutional guarantee for the digital-intelligent development of elderly care, ensuring the systematicness and continuity of policy implementation [1].

1.2 Platform Construction

Substantial progress has been made in platform construction in Dalian. The "Dalian Elderly Care Map" has been officially launched and put into operation. The elderly can screen suitable home-based and community elderly care service centers or institutions through the search function, realizing visual query and accurate matching of elderly care resources [2]. More importantly, the municipal-level smart

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

elderly care information platform is currently conducting data entry work and will be launched soon, which will serve as a core hub for integrating elderly care resources across the city. Meanwhile, each district and county operates at least one smart home-based elderly care service platform. Relying on the "1+N" home-based and community elderly care service facility network, these platforms provide diversified services such as elderly care consultation, call acceptance, and order distribution, forming a three-level (municipal, district/county, and sub-district/township) smart elderly care service network. From the perspective of Liaoning Province, Dalian and Shenyang jointly form the core of Liaoning's smart health and elderly care industry system. At present, 3 industrial bases, 12 sub-districts, and 5 enterprises in Dalian have been recognized as national-level pilot and demonstration units for smart health and elderly care applications, demonstrating Dalian's leading position in the field of digital-intelligent elderly care [3].

1.3 Technological Application

The digital-intelligent practices of elderly care institutions in Dalian show diversified characteristics. Some elderly care institutions in Dalian have established relatively complete smart elderly care technology application systems. In their daily operations, they use millimeter-wave radar sensing equipment for real-time monitoring of the elderly's vital signs, which can accurately identify fall behaviors, issue real-time alarms, and generate sleep health reports—achieving all-day safety protection while safeguarding the elderly's privacy [4]. In public activity areas, smart bracelets serve as a second layer of protection for active elderly people, enabling real-time tracking of health indicators such as heart rate and blood oxygen saturation, and providing intelligent reminders for medication and rehabilitation training. Notably, the customized WeChat mini-program developed by these institutions for family members enables real-time sharing of the elderly's living conditions and health data. This not only alleviates family members' worries but also builds a digital bridge for family-coordinated elderly care. These technological applications not only improve the efficiency and quality of elderly care services but also reshape the supply model of such services [5].

1.4 Digital-Intelligent Community and Home-Based Elderly Care

Dalian is exploring a "three-in-one integrated model" for community and home-based elderly care. This model takes families as the carrier, communities as the platform, and institutions as the support, and integrates eight categories of elderly care services (including meal services, day care, medical and health care, and spiritual comfort) through intelligent means [6]. The accurate matching mechanism based on data mining technology realizes the intelligent matching between elderly care needs and service supply; through the association classification rule mining method for service module division, personalized smart elderly care services can be provided through free combination and assembly according to the elderly's needs [7]. This modular and personalized service model effectively solves the problems of single content and disconnection between supply and demand in traditional elderly care services, injecting new vitality into community and home-based elderly care [8].

2. Challenges Faced by Dalian's Digital-Intelligent Elderly Care Development

Despite the remarkable achievements in the digital-intelligent development of elderly care in Dalian, numerous challenges persist in practice. These challenges span multiple dimensions, including technological application, service supply, talent support, and regional balance, requiring systematic review and resolution.

2.1 Digital Divide

The digital divide has emerged as the primary obstacle to advancing digital-intelligent elderly care. With the widespread application of digital-intelligent technologies in the elderly care sector, the issue of digital exclusion faced by the elderly—particularly those aged 80 and above and those with disabilities—has become increasingly prominent [9]. Although Dalian has carried out promotion and publicity initiatives for smart elderly care services, the insufficient digital literacy of the elderly remains fundamentally unaddressed. Currently, Dalian’s elderly-friendly transformation efforts suffer from inadequate improvement in interaction processes, improper function selection, and lack of operational guidance. The design of some smart elderly care devices and platforms fails to fully consider the physical and psychological characteristics of the elderly, featuring complex operation

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

procedures and unfriendly interfaces [10]. This results in low willingness to use and low utilization rates among the elderly. More notably, society holds biases and prejudices toward the digital capabilities of the elderly, labeling them as "digitally disadvantaged" or "internet-addicted seniors." Such perceptions further exacerbate digital exclusion among the elderly, forming a vicious cycle [11].

2.2 Unbalanced Regional Development

Unbalanced regional development is another prominent challenge for Dalian's digital-intelligent elderly care. From the overall perspective of Liaoning Province, there exists a huge gap in the coverage of elderly care service facilities between urban and rural communities—and this urban-rural disparity is equally evident in Dalian. Urban communities, leveraging their stronger economic foundations and technological conditions, have achieved rapid development in smart elderly care services [12]. In contrast, rural areas, due to relatively backward economies, scattered population distribution, and a shortage of professional talents, face low coverage of digital-intelligent elderly care services and a single range of service offerings. Even within urban areas, developmental gaps exist between different regions: core urban areas and outer urban areas show significant disparities in the construction of smart elderly care platforms and the level of technological application. This imbalance not only leads to low efficiency in the allocation of elderly care resources but also violates the fundamental principle of equalization of elderly care services, preventing some elderly groups from accessing the dividends brought by digitalization and intelligentization.

2.3 Imbalance between Technological Application and Humanistic Care

The imbalance between technological application and humanistic care has become a deep-seated contradiction restricting the sustainable development of digital-intelligent elderly care. In the practice of elderly care institutions, although technologies such as millimeter-wave radar and smart bracelets have enabled comprehensive monitoring of the elderly, tensions between technological application and humanistic care have gradually emerged. While new AI care robots replace human care work, they may trigger ethical controversies such as reduced human companionship, objectification, a sense of loss of control, and privacy infringement. Some institutions overemphasize the monitoring function of technology while ignoring the emotional needs and personal dignity of the elderly, leading to the phenomenon of "technology present but humanity absent." How to strike a balance between technological empowerment and humanistic care, and avoid the "coldness" and "mechanization" of elderly care services, has become an ethical dilemma that Dalian must address in the digital-intelligent development of elderly care [13].

2.4 Inadequate Talent Support System

An inadequate talent support system has seriously restricted the in-depth advancement of digital-intelligent elderly care. Although Dalian encourages undergraduate universities, secondary and higher vocational colleges, and technical schools to offer courses related to majors such as Smart Health and Elderly Care Service and Management, there remains a large gap between the scale of talent cultivation and market demand. On one hand, smart elderly care services require interdisciplinary talents who are proficient in both elderly care services and information technology. However, the existing training system focuses more on theoretical teaching and insufficiently on practical skills training. On the other hand, the elderly care service industry suffers from low salary and benefits and low social recognition, resulting in severe loss of professional talents. Implementing industrial talent cultivation projects and establishing a systematic talent training system are key to promoting the high-quality development of the smart health and elderly care industry [14].

2.5 Incomplete Data Sharing and Security Guarantee Mechanisms

The construction of Dalian's municipal-level smart elderly care information platform has laid the foundation for data integration. However, data sharing mechanisms across departments, regions, and institutions have not yet been fully established, leading to the phenomenon of "information silos." The fragmented management of elderly care data not only affects the accurate supply of services but also restricts the full utilization of the functions of smart elderly care platforms. Issues related to data security and privacy protection have become increasingly prominent. Intelligent devices collect a large amount of physiological and behavioral data of the elderly; once such sensitive data is leaked or misused, it will seriously infringe on the legitimate rights and interests of the elderly. While promoting

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

the integration of AI with lifelong learning for the elderly, it is essential to strengthen data security guarantees. How to ensure data security while promoting data sharing has become an important challenge for Dalian's digital-intelligent elderly care development [15].

2.6 Insufficient Accurate Matching Between Service Supply and Demand

Insufficient accurate matching between service supply and demand has affected the practical effectiveness of digital-intelligent elderly care. While providing intelligent and professional elderly care services, ensuring the quality of personalized elderly care services has become a focus of attention. Although Dalian has established a "three-in-one" integrated framework for smart elderly care services, there is still room for improvement in the accuracy of demand identification and the targeting of service supply. Some smart elderly care projects tend to "emphasize construction over operation" and "prioritize technology over services," failing to provide services based on the actual needs of the elderly. This leads to low utilization rates of some advanced digital-intelligent devices and idle functions. Such a mismatch between supply and demand not only causes resource waste but also reduces the elderly's sense of gain and satisfaction, which is detrimental to the sustainable development of digital-intelligent elderly care.

3. Future Paths for the Digital-Intelligent Development of Elderly Care in Dalian

Faced with opportunities and challenges in the digital-intelligent development of elderly care, Dalian needs to construct a systematic and multi-level future development path. Driven by technological innovation, centered on humanistic care, and supported by institutional guarantees, the city should promote the high-quality digital-intelligent development of elderly care and build a smart elderly care service system with distinctive Dalian characteristics.

3.1 Constructing a Precision-Oriented Smart Elderly Care Service System

Constructing a precision-oriented smart elderly care service system constitutes the core direction for future development. Based on Dalian's "three-in-one" elderly care service framework, the application of data mining and analysis technologies should be further advanced to achieve intelligent matching between elderly care needs and service supply. A health data platform with Dalian characteristics should be established to collect the elderly's health data via intelligent devices; by leveraging cloud computing and big data analytics technologies, personalized health advice and early warning services can be provided. Furthermore, the "Internet + Elderly Care" cloud platform should be optimized to realize the collection, processing, analysis, and feedback of full-chain elderly care data, thereby forming a virtuous cycle of elderly care services.

In terms of service module design, the elderly's demand pyramid model can be further refined. Starting from survival needs, health needs, and living needs to spiritual needs, more precise and personalized service modules should be developed. Through free combination and assembly of these modules, the diverse needs of different elderly groups can be met. Notably, emphasis should be placed on strengthening the precision application of the integration of medical and elderly care services—integrating services such as health management, disease prevention, and rehabilitation care in an organic manner. This will facilitate the transformation from disease treatment to health management, ultimately enhancing the elderly's health status and quality of life.

3.2 Promoting Elderly-Friendly Design and Digital Support to Bridge the Digital Divide

Promoting elderly-friendly design and digital support serves as a key measure to bridge the digital divide. To address the insufficient digital literacy of the elderly, Dalian should strengthen efforts in elderly-friendly design and transformation. Rather than merely conducting post-hoc elderly-friendly transformation, it is more critical to implement elderly-friendly design from the source. Specifically, the switching method for the elderly-friendly version of smart elderly care Apps should be standardized, operation processes simplified, guidance optimized, and content review strengthened—all to improve the convenience and security of use for the elderly.

A sound standard system and sustainable mechanism for elderly-friendly transformation should be established to ensure the scientificity and systematicness of elderly-friendly initiatives. More importantly, it is essential to vigorously advance digital support and construct a digital assistance

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

system that integrates family members, community volunteers, and professional institutions. By launching digital skills training programs for the elderly and organizing paired assistance by young volunteers, the elderly's digital literacy and application capabilities can be enhanced. Adopting the concept of "integrating AI with lifelong learning for the elderly," digital skills education should be incorporated into the curriculum systems of senior universities and community education. This will help the elderly bridge the digital divide and share the achievements of digital-intelligent development.

3.3 Strengthening the Integration of Technological Innovation and Humanistic Care for Sustainable Development

Strengthening the integration of technological innovation and humanistic care is an inherent requirement for achieving the sustainable development of digital-intelligent elderly care. Building on existing technological applications, Dalian should further explore the innovative application of cutting-edge technologies in the elderly care field and construct a digitalized and intelligent elderly care environment. For instance, AI-assisted diagnosis systems can be introduced to improve the accuracy and efficiency of geriatric disease diagnosis; emotional companion robots can be developed to alleviate the loneliness of the elderly.

However, in the process of technological application, the concept of "technology for good" must be consistently adhered to, and humanistic care should be integrated into the entire process of technological innovation. AI care robots should be regarded as partners of humans rather than substitutes, and the ethical boundaries of technological application should be clearly defined. A strict privacy protection system should be established to specify the scope of data collection, permissions for data use, and responsibilities for confidentiality—achieving a balance between safety monitoring and privacy protection. Additionally, training on humanistic literacy for elderly care service practitioners should be strengthened to enhance their communication skills and emotional care capabilities. This will prevent "emotional desertification" caused by excessive reliance on technology and ensure that digital-intelligent elderly care is filled with warmth.

3.4 Improving Talent Cultivation and Incentive Mechanisms to Address the Shortage of Digital-Intelligent Elderly Care Talents

Improving talent cultivation and incentive mechanisms is the fundamental approach to resolving the shortage of digital-intelligent elderly care talents. Dalian Municipal Government should further optimize the smart elderly care talent cultivation system, expand the enrollment scale of relevant majors in existing institutions, and encourage more colleges and universities to offer the major of Smart Health and Elderly Care Service and Management to cultivate more interdisciplinary talents.

In terms of cultivation models, university-enterprise cooperation should be strengthened, and an integrated talent cultivation mechanism of "production, education, research, and application" should be established. Through the construction of practical training bases and the implementation of order-based cultivation, the practical capabilities and professional literacy of students can be enhanced. Dalian should formulate a special cultivation plan for smart elderly care talents, set up a talent development fund, and support practitioners in participating in continuing education and skills training.

Moreover, it is necessary to improve the salary and welfare system as well as incentive mechanisms for elderly care service practitioners, enhance the industry's attractiveness and social recognition, and stabilize the talent team. In addition, efforts should be made to cultivate a group of smart elderly care entrepreneurs and leading talents who possess both technical expertise and management capabilities, so as to lead industrial innovation and development.

3.5 Optimizing Regional Synergy and Urban-Rural Coordination to Achieve Balanced Digital-Intelligent Elderly Care Development

Optimizing the pattern of regional synergy and urban-rural coordinated development is an important guarantee for realizing balanced development of digital-intelligent elderly care. Dalian should give full play to its core role in Liaoning Province's smart elderly care industry system, strengthen cooperation and exchanges with cities such as Shenyang, and form a regional development pattern characterized by complementary advantages and resource sharing.

Within the municipal administrative area, a sound mechanism for the coordinated development of urban-rural digital-intelligent elderly care should be established. More policy inclination and resource

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

input should be directed to rural areas and remote urban districts to narrow the urban-rural gap. In rural areas, cost-effective and easy-to-operate smart elderly care technologies and equipment—such as simplified smart bracelets and emergency call systems—should be promoted. Relying on township-level elderly care service centers, regional smart elderly care service platforms should be built to realize centralized resource management and efficient distribution.

Through models like "Internet + Medical and Health Care," high-quality urban medical resources should be extended to rural areas to alleviate the shortage of rural elderly care resources. A sound evaluation system for smart elderly care services should be established, which, in accordance with national standards, is divided into three sub-systems: service evaluation standards, service provision standards, and service guarantee standards. Standardization should be used to promote the balanced improvement of urban-rural elderly care service quality.

3.6 Improving Data Security and Ethical Governance Systems to Mitigate Digital-Intelligent Elderly Care Risks

Improving data security and ethical governance systems is the institutional foundation for mitigating risks in digital-intelligent elderly care. Dalian should accelerate the data integration and sharing of the municipal-level smart elderly care information platform, break down inter-departmental barriers and information silos, and realize the interconnection and efficient utilization of elderly care data.

However, data sharing must be based on security. A sound elderly care data security management system should be established to clarify security responsibilities in all links, including data collection, storage, use, and transmission. Technologies such as encryption and access control should be adopted to ensure data security. Ethical norms for AI care robots should be formulated, and an ethical review committee for digital-intelligent elderly care should be established to conduct ethical assessments and risk prevention for the application of smart elderly care technologies.

In response to potential ethical controversies arising from AI care robots and health monitoring devices, clear ethical guidelines should be developed to regulate the scope and methods of technological application, ensuring that technology serves human well-being. In addition, legal protection for the rights and interests of the elderly should be strengthened, relevant laws and regulations should be improved, and the rights and obligations in digital-intelligent elderly care services should be clarified to provide a solid legal guarantee for the development of digital-intelligent elderly care.

3.7 Deepening the Integration of International Cooperation and Local Innovation to Enhance Dalian's Digital-Intelligent Elderly Care Level

Deepening the integration of international cooperation and local innovation is an important way to enhance the level of digital-intelligent elderly care in Dalian. As a coastal open city, Dalian should fully leverage its geographical advantages, actively learn from advanced international experiences—such as the UK's community-based smart elderly care center model, the US's telemedicine platforms, and Japan's care robot applications—and absorb their technological innovations and service concepts.

At the same time, efforts should be made to strengthen local innovation, combining Dalian's aging characteristics and elderly care needs to develop smart elderly care solutions with local features. For example, the integrated model of "smart elderly care + marine wellness" can be explored: by leveraging Dalian's marine resource advantages, marine-themed smart wellness projects should be developed. In conjunction with Northeast Asian regional cooperation, a cross-border elderly care service platform should be built to attract international resources to participate in the development of Dalian's elderly care industry.

Through the organic integration of international cooperation and local innovation, Dalian can not only improve the internationalization level of its digital-intelligent elderly care but also form a demonstration-worthy "Dalian Model," providing experience for the development of digital-intelligent elderly care across China.

4. Conclusions and Prospects

The digital-intelligent development of elderly care in Dalian has entered a critical stage. While

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

remarkable progress has been achieved in policy promotion, platform construction, and technological application, it also faces multiple challenges, such as the digital divide, regional imbalance, and the imbalance between technology and humanism [16]. Through systematic analysis, this paper argues that the digital-intelligent development of elderly care in Dalian must adhere to the elderly's needs as the core, take technological innovation as the support, and rely on institutional improvement as the guarantee, thus pursuing a development path characterized by precision, coordination, and humanization [17].

From the perspective of practical effects, the smart elderly care working mechanism of "government leadership, inter-departmental coordination, and social participation" constructed by Dalian has provided a strong institutional guarantee for the digital-intelligent development of elderly care. The construction of the "Dalian Elderly Care Map" and the municipal-level smart elderly care information platform has laid a technical foundation for the integration and sharing of elderly care resources. The technological application practices of institutions such as Ruikangzhijia Elderly Care Home have demonstrated the great potential of digital-intelligent technologies in improving the quality of elderly care services. Additionally, the "three-in-one" integrated framework for smart elderly care services has offered an effective solution to address the fragmentation of elderly care services. These practical explorations have not only enhanced the modernization level of elderly care services in Dalian but also provided valuable references for other cities [18].

In future development, Dalian needs to achieve key breakthroughs in the following aspects: First, it is necessary to deepen data-driven precision services, and realize the intelligent matching between elderly care needs and service supply through big data analysis and artificial intelligence technologies. Second, efforts should be made to strengthen elderly-friendly design and digital support, helping the elderly bridge the digital divide and enhancing their sense of gain from digital-intelligent development. Third, it is essential to balance technological innovation and humanistic care—while promoting the application of intelligent equipment, attention should be paid to emotional companionship and respect for human dignity. Fourth, the talent cultivation system should be improved to address the shortage of professional talents in smart elderly care. Fifth, overall planning for urban-rural development should be strengthened to narrow regional gaps and realize the equalized supply of digital-intelligent elderly care services. Sixth, the data security and ethical governance system should be refined to prevent risks associated with technological application [19].

Looking ahead, with the continuous development of technologies such as 5G, artificial intelligence, and the Internet of Things, the digital-intelligent elderly care in Dalian will present the following development trends: First, the service model will become more personalized, providing customized services through accurate identification of the elderly's needs. Second, service scenarios will be more integrated, realizing seamless connection among home-based, community-based, and institutional elderly care services. Third, service providers will be more diversified, forming a pattern where the government, enterprises, social organizations, and families work together. Fourth, the service connotation will be more enriched, extending from daily care to comprehensive services such as health management and spiritual comfort. Notably, as the "silver economy" is elevated to a national strategy, Dalian is expected to leverage its core position in the smart health and elderly care industry system to cultivate and form a complete industrial chain covering technology R&D, product manufacturing, and service operation—enabling digital-intelligent elderly care to become a new driver for promoting economic transformation and upgrading [20].

In conclusion, the digital-intelligent development of elderly care in Dalian is not only an inevitable choice to address the challenge of population aging but also a livelihood project to improve the quality of life of the elderly. By continuously deepening reform and innovation and optimizing the development path, Dalian is expected to build a smart elderly care service system that integrates technological advancement, precise services, and humanistic care, thereby contributing the "Dalian Solution" to realizing active aging and constructing an elderly-friendly society.

Acknowledgements

This work was supported by Liaoning University of International Business and Economics university-level research, Study on Optimization Paths of Elderly Care Institutions Empowering Community Governance in the Context of Digital-Intelligent Technology Application (2024XJLXQN032).

ISSN 2616-5902 Vol. 7, Issue 10: 49-56, DOI: 10.25236/AJBM.2025.071008

References

[1] Liu Hao, Li Fulian & Wang Sheng (2025). Research on the coupling and coordination pattern and influencing factors of home-based community elderly care and institutional elderly care in China. Arid Land Geography, 1-19.
[2] Du Sisi. (2025). A comparative study on smart elderly care policies in deeply aging regions based on a two-dimensional analytical framework. Secretary, (5): 71-82.
[3] Wang Zhimei, Tian Runli & Li Hong. (2025). Research on the reform of the "1.5+1+0.5" education model for smart health and elderly care majors based on the integration of industry and education. Modern Vocational Education, (27): 41-44.
[4] Xie Bingqing. (2025). "No filial children in front of a long-term sickbed"? —— Rights and interests dilemmas and solutions for family elderly care providers. Qiushi (Seeking Truth), (5): 91-100.
[5] Cui Can, Yang Linchuan, Qing Shisong, Pan Zehan, Liu Chunhui, Zhu Yuanyuan... & Li Ting (2025). Challenges and coping paths for high-quality development of population and resources oriented to Chinese modernization. Journal of Natural Resources, 1-18.
[6] Ning Xuesi (2025). The concept of positive unification: Paths for integrated development of urban and rural elderly care services —— Taking three types of urban-rural ambiguous areas as case studies. Journal of Northwest A&F University (Social Science Edition), 1-11.
[7] Su Weijie. (2025). Research on the legalization transformation of elderly education governance in China and its implementation mechanism. Theoretical Monthly, (9): 85-98+159.
[8] Zhang Shu (2025). Action logic and realization mechanism of cooperative production of public elderly care services —— A case study based on the construction of "time bank" in Nanjing. Soft Science of Health, 1-11.
[9] Liu Zhenfen & Liu Xiaoyun (2025). Research on the digital-intelligent transformation path of community home-based elderly care services. Theoretical Exploration, 1-8.
[10] Gan Ying. (2025). "Service tournament": An explanatory framework for the dilemma of service going to the countryside —— Taking the elderly care people's livelihood projects in L District, Lishui City, Zhejiang Province as an example. Qiushi (Seeking Truth), (5): 98-108+112.
[11] Pan Fang. (2025). Research on smart elderly care policies and service systems in Jiangsu: Innovative paths integrating low-altitude economy. Modern Business and Trade Industry, (20): 8-10.
[12] Dong Yang, Miao Siyao & Liu Yinxi. Unlocking the "co-care" code: Behavioral logic and realization mechanism of co-production in government-purchased smart elderly care services. Governance Studies, 1-17.
[13] Wang Tingting & Qu Wei. (2025). Research on home-based community smart elderly care service models under the background of "Internet +". Modern Business and Trade Industry, (20): 80-83.
[14] Zhang Hongyu. (2025). Constructing a multi-level, classified and regional rural elderly care policy framework. China Reform, (5): 60-62.
[15] Xie Qingsong. (2025). Research on the transformation path of old-age insurance services for former pilot enterprises in the digital economy. China Conference & Exhibition, (16): 126-128.
[16] Sun Buke, Dong Xinyi & Zeng Xuelan (2025). Ethical dilemmas and governance strategies of the integrated medical-nursing elderly care model. Chinese Medical Ethics, 1-10.
[17] Wu Ping & Leng Xiaohang. (2025). Internal logic and practical mechanism of new productive forces empowering the multi-level elderly care security system. Social Scientist, (4): 91-98.
[18] Gao Yun (2025). "Suspension" dilemma and solution paths of community smart elderly care from the perspective of uncertainty: An empirical study based on Community X in Shanghai. Population and Society, 1-18.
[19] Lü Hanfu & Liu Xinyu. (2025-08-01). Innovating governance models: Zuoyun draws a "new blueprint" for happy communities. Shanxi Youth Daily, p. 015.
[20] Zhong Yaqin, Yang Zhuoya, Xu Wenkun & Cao Xin. (2025). Research on the coupling coordination degree between supply and demand of elderly care service facilities in China. Journal of Nanjing Medical University (Social Sciences), 25(4): 347-355.