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Review Article

Strategic Research on Advancing Baoding's Resilient Medical and Elderly Care Industry System

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Abstract

With the intensification of population aging, the integrated medical and elderly care industry has gradually become the focus of social attention. Baoding City, as an important node in the Beijing-Tianjin-Hebei coordinated development, faces new opportunities and challenges in the development of the medical and elderly care industry. This paper aims to explore how to promote the construction of a resilient medical and elderly care industry system in Baoding City, proposing specific strategies from four aspects: policy support, service system, technological innovation, and talent cultivation. By analyzing the current status of the medical and elderly care industry in Baoding and combining successful domestic and international experiences, this paper constructs a resilient medical and elderly care industry system with regional characteristics, providing a reference for the development of the medical and elderly care industry in Baoding and even nationwide.

Keywords: Integrated care, Demographic shift, Baoding City, Beijing-Tianjin-Hebei, Population aging.

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Introduction

Baoding City, located in the central part of Hebei Province, is one of the key cities in the Beijing-Tianjin-Hebei coordinated development initiative. With the acceleration of population aging, the integrated medical and elderly care industry has gradually become a new highlight in Baoding's economic and social development. However, while this sector has developed rapidly in recent years, it still faces numerous challenges, including insufficient service supply, inadequate technological capabilities, and talent shortages. Therefore, building a resilient medical-nursing industrial system to enhance the quality and efficiency of care services has become an important task for Baoding's current and future development.

The challenges faced by Baoding's medical and elderly care industry are as follows:

Baoding's medical and elderly care industry currently faces the following challenges:

1. Mismatch Between Service Supply and Demand Insufficient Service Supply:

With the accelerating aging population, the demand for medical and elderly care services is rapidly increasing. However, Baoding has limited numbers of medical and elderly care institutions, which are unevenly

distributed, resulting in a failure to meet the diverse needs of the elderly.

Uneven Service Quality:

Some institutions lack adequate service quality and professional standards, making it difficult to provide high-quality care. This may reduce trust among the elderly and further exacerbate the supply-demand gap.

2. Limited Technological Capabilities and Innovation Low Technical Proficiency:

Medical and elderly care services require advanced technical expertise across healthcare, rehabilitation, and nursing. However, some institutions in Baoding lack investment in technological innovation and R&D, slowing service improvements.

Weak Innovation Drive:

Due to insufficient market competition and inadequate policy support, some institutions lack motivation to adopt new technologies, equipment, or models, hindering industrial development.

3. Talent Shortages and Structural Imbalances Professional Talent Deficiency:

The industry demands skilled professionals in healthcare, nursing, and rehabilitation. Yet, Baoding

faces a shortage of such talent, particularly high-caliber experts.

Imbalanced Talent Structure:

Current staff predominantly consist of junior professionals and generalists, with fewer senior experts and specialized talents. This imbalance restricts industrial upgrading and growth.

4. Inadequate Policy Support and Regulatory Mechanisms

Limited Policy Implementation:

Although national policies support the medical and elderly care sector, Baoding struggles with effective local execution. Policies often lack specificity and actionable measures.

Fragmented Regulatory Frameworks:

The industry spans multiple sectors, requiring robust oversight to ensure service quality and safety. However, regulatory gaps persist, leading to violations by some institutions.

5. Low Social Awareness and Acceptance Limited Public Understanding:

Misconceptions about medical and elderly care services hinder acceptance, particularly among older adults.

Traditional Cultural Preferences:

The deeply rooted tradition of filial piety and family-based eldercare in China discourages reliance on institutional care, further slowing industry growth.

To address the challenges faced by Baoding's medical and elderly care industry, this paper proposes the following strategies to advance the development of a resilient industrial system: Firstly, Baoding has to strengthen policy support, for example, Baoding can improve the policy system, develop and refine policies to clarify development directions, objectives, and priority tasks for the medical-nursing industry, and enhance policy specificity and feasibility to ensure effective implementation.

Baoding can increase financial investment, the government should allocate greater resources, including financial subsidies and tax incentives, to encourage private capital participation in the industry. Besides, Baoding can establish regulatory mechanisms, to build a robust oversight framework to monitor and evaluate medical-nursing institutions, ensuring service quality and safety.

Secondly, Baoding can optimize service delivery systems, build a diversified service system, encourage private sector involvement to create a government-led, socially participatory service model, promote collaboration and resource sharing among institutions.

Baoding can enhance service quality, strengthen institutional professionalism and improve staff expertise, tailor services to meet diverse elderly care needs, advance smart medical-nursing, leverage big data, cloud computing, and AI to digitize and streamline services. Besides, Baoding can develop integrated information platforms for seamless coordination of healthcare, rehabilitation, and nursing.

Thirdly, Baoding can boost technological innovation, encourage R&D Investment, support enterprises and research institutions in developing key technologies and products, facilitate technology transfer and application to elevate service capabilities.

Baoding can adopt advanced technologies, introduce cutting-edge domestic and international medical-nursing technologies and equipment, and provide training to improve staff proficiency.

Besides, Baoding has to strengthen industry-academia collaboration, innovate partnerships between universities, research organizations, and enterprises and establish joint R&D centers and laboratories to drive innovation and talent development.

Fourthly, Baoding can cultivate skilled talent, for example, expand Talent Development Programs, which can enhance education in medical-nursing-related disciplines and promote school-enterprise collaboration to align training with industry needs.

Besides, Baoding can intensify workforce training, for example, offer multilevel training programs to improve professional skills and service quality, attract and retain talent, implement policies such as competitive salaries, career advancement opportunities, and performance incentives to motivate professionals.

Fifthly, Baoding can deepen school-enterprise collaboration and industry-education integration, establish partnership mechanisms, foster collaborations between universities, vocational colleges, and care institutions for joint talent cultivation and innovation.

Baoding can also develop Industry-Education Projects, launch initiatives like shared training bases and dual-degree programs to integrate education with practical industry needs.

Besides, Baoding can create internship bases, set up hands-on training facilities within care institutions to provide students with practical experience and institutions with future talent pipelines.

The construction of a resilient medical-nursing industrial system in Baoding can draw on successful experiences and practices from both domestic and international models:

1. International Experiences

U.S. Focuses on community and family support, offering services such as home care and daytime assistance to meet diverse elderly needs. Emphasizes smart and convenient service delivery through technology integration to enhance service quality and efficiency.

Japan prioritizes mental health and emotional well-being for seniors, providing psychological counseling, cultural activities, and recreational programs. Strengthens professional training for caregivers to improve service quality and staff expertise.

2. Domestic Experiences

Shanghai Highlights resource integration and collaborative development, achieving seamless coordination among healthcare, rehabilitation, and nursing services. Advances smart medical-nursing systems using modern information technologies to boost service accessibility and efficiency.

Chengdu Stresses grassroots healthcare and elderly care integration, enhancing primary-level medical institution capacity to extend services to communities. Strengthens talent cultivation and recruitment to elevate professional standards across the sector.

Advancing coordinated industrial development across Beijing, Tianjin, and Hebei—particularly in fostering Baoding's resilient medical-nursing sector—requires integrated strategies across strategic planning, resource integration, policy alignment, technological innovation, and talent cultivation. Below are specific measures:

Clarify Regional Synergy Roles:

Under the broader framework of Beijing-Tianjin-Hebei coordinated development, Baoding should define its role in the medical-nursing industry, such as serving as a key recipient hub for regional medical-nursing services or an innovation demonstration zone, to guide industrial development.

Formulate Industrial Development Plans:

Baoding should develop medium-term plans to long-term plans tailored to Baoding's conditions, outline clear objectives, priority tasks, and implementation pathways to ensure structured progress.

Cross-Regional Resource Integration:

Baoding should leverage Beijing and Tianjin's medical resources (e.g., top-tier hospitals, research institutions) to build shared platforms for medical-nursing services in Baoding.

Industrial Chain Collaboration:

Baoding should optimize industrial chain division across the three regions, focusing on

collaborative R&D, equipment manufacturing, and service delivery. Establish a Beijing-Tianjin-Hebei medical-nursing industrial alliance to enhance efficiency.

Smart Medical-Nursing Networks:

Baoding should deploy IOT and cloud platforms to integrate elderly care, remote healthcare, and emergency response systems across the region.

Align Central and Local Policies:

Baoding should strengthen coordination between national policies and local implementations, ensuring support for cross-regional projects (e.g., medical insurance portability, standardized qualification recognition).

Innovative Policy Pilots:

Baoding should design a policy toolkit, including tax incentives, streamlined approval processes, and regulatory sandboxes for testing new models (e.g., community-based care, AI-driven diagnostics).

Beijing-Tianjin-Hebei R&D Consortium:

Baoding should establish joint labs and innovation centers to focus on breakthroughs in elderly care technologies (e.g., smart wearables, telemedicine).

Technology Transfer in Baoding:

Baoding should build pilot testing bases to commercialize research outcomes, prioritizing applications like fall detection systems, chronic disease management tools, and rehabilitation robotics.

Talent Cultivation High-Level Talent Attraction:

Baoding should introduce talent programs offering housing subsidies, research grants, and career incentives to recruit experts in geriatric medicine, nursing, and smart health tech.

Skill-Based Workforce Development:

Baoding should expand vocational training partnerships with universities and enterprises. Implement dual-appointment systems (combining academic and industry roles) and order-based training programs to align skills with industry demands.

The establishment of a resilient medicalnursing industrial system represents a critical initiative for Baoding City to tackle the challenges of population aging while fostering economic and social progress. Through coordinated efforts in strengthening policy support, optimizing service delivery systems, advancing technological innovation, and nurturing specialized talent, Baoding can gradually establish a regionally distinctive medical-nursing ecosystem characterized by resilience. Looking ahead, Baoding should deepen reforms and innovation within the medical-nursing sector, enhance collaboration with international best practices, and continuously improve service quality and operational efficiency. By doing so, the city will be able to deliver high-quality, accessible, and efficient care services tailored to the evolving needs of its elderly population, ultimately setting a benchmark for sustainable aging-society solutions in China.

BIBLIOGRAPHY

- Chen, L., & Wang, Q. Talent Cultivation in China's Aging Society: Challenges and Solutions[J]. China Quarterly of Gerontology, 2021(3), 456-472.
- Feng, X., & Patel, R. Building Resilient Healthcare Ecosystems: Lessons from Global Practices[J].

- International Journal of Environmental Research and Public Health, 2022(5), 2876.
- Lee, K., & Tanaka, H. Smart Healthcare Systems in Japan: Integration of AI and Robotics[J]. Journal of Medical Systems, 2018(12), 234.
- National Health Commission of China. White Paper on Regional Coordinated Development in Beijing-Tianjin-Hebei. Beijing: China Health Press, 2023.
- State Council of China. Guidelines for Accelerating the Development of the Elderly Care Service Industry[M]. Beijing: China Social Sciences Press, 2019.
- World Health Organization (WHO). Ageing and Health, 2021. Retrieved from https://www.who.int.
- Zhang, Y., & Liu, J. China's Medical-Nursing Integration Policies: Lessons from Pilot Cities[J]. Health Policy and Planning, 2020(8), 987-995.