Research into Intelligent Elderly Care in China in the Context of the Internet

Mingxiao Wang

Electronic Business Program, Shandong Foreign Trade Vocational College, Qingdao, Shandong, E-mail: 389299386@qq.com

Abstract: *China is the most populous country in the world. With the continuous growth of the total population and the continuous extension of the national average life expectancy, the problem of social population aging is becoming more and more serious, and has caused a series of social problems. First, the social burden has increased. Second, the contradiction to support the elderly has increased. In order to effectively improve the needs of the elderly in China and based on the background of Internet development in China, this paper puts forward the problems that need to be solved through a large number of investigations.*

Keywords: *Intelligent Elderly Care; Elderly Care Institution; Interconnection; Online and Offline Integration*

1. Current Status of the Elderly Care Industry in China

According to the data of the seventh national census, in terms of the age composition of China's population, the population aged 0 to 14 is 253.38 million, accounting for 17.95%; The population aged 15-59 is 894.38 million, accounting for 63.35%; The population aged 60 and above is 264.02 million, accounting for 18.7%. Compared with 2010, the proportion of the population aged 15 to 59 decreased by 6.79% in 2021, and the proportion of the population aged 60 and over increased by 5.44% in 2021. It can be seen that the problem of social population aging is becoming more and more serious and has caused a series of social problems. First, the social burden has increased. With the increasing aging of the social population, the demand of the elderly population for social pension, medical care and public services is also increasing. Under the background of economic downturn, the protection of pension also puts forward new requirements for government finance. Second, the contradiction to support the elderly has increased. In the past few decades, China's one-child families have gradually increased. Up to now, in addition to facing the increasing pressure of real life and work, the only child also needs to bear the support of two elderly people, resulting in the increase of empty nesters, the weakening of support concept, and the lack of guarantee for the elderly's life.

At present, the development of China's elderly care industry is slow and cannot meet the needs of the elderly. In recent years, the number of elderly care institutions in China has shown an overall growth trend. By the first quarter of 2021, there are about 38000 pension institutions in China, but the growth rate of elderly care institutions is slightly slow compared with that of the elderly group. On the one hand, the quality of elderly care institutions is uneven and the development is uneven. At present, China's elderly care institutions can be divided into high, middle and low categories. The fees of high-end elderly care institutions are high, the proportion is relatively small, and they are mainly concentrated in the provincial capital cities. Although the middle and low-end elderly care institutions, which account for the vast majority, charge low fees and can also radiate to most counties and cities, their service quality and business model are often backward, which cannot meet the material and spiritual needs of today's elderly groups. On the other hand, due to the late start of China's elderly care industry, compared with the huge elderly population, there is a serious shortage of employees in specialized elderly care institutions, and most elderly care institutions have not received professional learning and training. At the same time, influenced by the traditional concept of providing for the aged, the elderly in China are more willing to take the way of providing for the aged at home than to increase the burden on their children, especially in rural areas, which also has a certain impact on the development of elderly care institutions.

In order to effectively improve the needs of the elderly in China, the Ministry of Industry and Information Technology, the Ministry of Civil Affairs and the National Health and Family Planning

Commission jointly issued the action plan for the development of smart health and elderly care industry 2017-2020, which proposes to use new technologies such as Internet of things, cloud computing, big data and intelligent hardware to promote the intelligent upgrading of health and elderly care services and improve the quality of health and elderly care services, Accelerate the development of smart, healthy and elderly care industry.

2. Investigation into the Current Health Care Market

2.1 Suppliers on the Market

At present, China's elderly care is mainly divided into three modes: home, community and institution. At the national level, the government puts forward that home-based elderly care is the basis, community-based elderly care is the support and institutional elderly care is the supplement, and defines the different positioning of the three elderly care models. With the development of the theory of intelligent support for the aged, the combination of intelligent endowment and traditional pension simultaneous interpreting has formed four main modes, namely, smart home care, intelligent community endowment, smart home care, and smart home care. At the same time, there are other forms of high-end pension, real estate pension and so on. In the future, China's elderly care industry has a very broad market prospect. According to the calculation of the Institute of aging of the Chinese Academy of Social Sciences, the potential value of China's health care market is about 4 trillion yuan. With the continuous increase of the elderly population, the market potential value of the elderly care industry will increase to 13 trillion yuan by 2030. As an emerging industry with a huge market, foreign enterprises have entered China to seize the smart elderly care market, and domestic traditional enterprises and institutions are also transforming and upgrading on the existing basis. At present, China's intelligent health care market presents a situation of many participating enterprises, small scale and uneven product and service levels. The smart pension market is in the initial stage of development.

2.2 Demanders in the Market

China's aging population leads to the increase of the elderly population year by year, and the requirements for elderly care services are also increasing. In some cities, there are even "one bed is difficult to find" at elderly care institutions, and the elderly group has a strong demand for elderly care. At the same time, through a random survey of the elderly group, more than 80% of the elderly want to learn internet and computer knowledge, and more than 70% of the elderly believe that the Internet is helpful to their own life. These needs are the starting point of intelligent elderly care.

The investigation also found that the elderly are most concerned about health services, mainly because the elderly are generally prone to health problems. At the same time, most of the elderly have low awareness of intelligent pension, but high acceptance. Many elderly people do not know about smart elderly care, but they are very willing to accept smart elderly care and learn and train intelligent products and services. It can be seen that the elderly have a certain digital gap for intelligent elderly care, and relevant publicity and training need to be strengthened. The biggest factor affecting the elderly's cognition and acceptance of intelligent elderly care is economic income. On the one hand, the economic burden has become the biggest obstacle to the elderly to accept intelligent pension. On the other hand, most of the elderly hope that the government can give appropriate subsidies and help groups in providing for the elderly. It can be seen that the government needs to strengthen its elderly care policies, elderly care subsidies and elderly care security system to play a fundamental role in the elderly care life of the elderly.

3. Problems to be Solved in Constructing Intelligent Elderly Care System

In the face of the growing large group of the elderly in China, the traditional elderly care industry model has been unable to meet the needs of the elderly group. Intelligent elderly care has become an important way out for the transformation and upgrading of the traditional elderly care industry. Building a systematic intelligent elderly care industry model is the key to the implementation of intelligent elderly care, and the following problems need to be studied and solved:

3.1 Form a government enterprise linkage and department linkage model

The construction of intelligent elderly care industry involves all aspects and requires the joint participation and cooperation of government departments and elderly care enterprises. At the departmental level, organize relevant departments involved in the construction of intelligent elderly care to study their work, and establish a multi departmental linkage mechanism around intelligent elderly care to ensure that intelligent elderly care policies are implemented and responsibilities are fulfilled. At the level of government and enterprises, we should adhere to the market-oriented, take intelligent elderly care as the starting point, and explore effective ways of government and enterprise cooperation with the goal of meeting the diversified needs of the elderly. By strengthening the linkage between government and enterprises and between departments, we can form unified management and standards, promote the efficient utilization of social resources and market resources, and avoid resource waste and duplication of work.

3.2 Building the material foundation of intelligent elderly care industry

At present, the domestic intelligent elderly care industry is still in the development stage and has not yet formed a scale. Many institutions still adopt the traditional pension model based on manpower, pay little attention to the construction of intelligent elderly care, and lack corresponding infrastructure such as information infrastructure, supporting equipment and online service platform. As an emerging industry, intelligent elderly care explores the establishment of online service platform and offline entity institutions, and a sound software and hardware foundation is the key to development.

3.2.1 Create online service platform

The intelligent elderly care online service platform should be used to enable the elderly to exchange goods and services with government departments and offline entities conveniently and quickly. As the provider of services, government departments continuously improve the construction of local intelligent care service platform in practice by building intelligent care online service platform. Enterprises can understand the real needs of the current elderly group through intelligent elderly care's online service platform, so as to provide targeted services and promote their own services and products. Through intelligent elderly care's online service platform, the elderly can choose to meet their own needs without leaving home, which is more convenient and fast.

3.2.2 Transform offline entity

Offline entities, as the main body of providing elderly care products and services, explore information application and intelligent transformation is the general trend. We should use information technology to transform and upgrade the traditional pension model, and integrate scattered and backward enterprises into the Internet and big data. This is not only conducive to the optimal allocation of social resources, but also help enterprises improve the disadvantages of the traditional pension model, improve the quality of goods and services, and help enterprises improve their social image.

3.2.3 Improve the top-level design

We should study the typical intelligent elderly care in domestic cities, summarize the intelligent elderly care experience, methods and methods suitable for China's national conditions, help the government strengthen the top-level design, coordinate social resources, promote urban and rural information infrastructure, and provide a healthy development environment for the development of intelligent elderly care industry.

3.3 Construction of professional elderly care team

With the continuous development of society, the elderly group's requirements for elder care services are also increasing, but the lack of elder care service professionals makes it difficult for enterprises and institutions to provide goods and services to meet the needs of the elderly group, which has become the focus and difficulty of the development of intelligent elder care industry. Therefore, it is urgent to explore the ways of professional talent training and introduction. Different from the traditional elder care model, intelligent elder care needs a high-level, professional and humanized professional talent team. The construction of professional talent team is conducive to the promotion and implementation of intelligent elder care, and helps elder care institutions provide better and more diversified elder care services for the elderly. On the one hand, by exploring the talent training and learning mechanism, such as setting up relevant majors in intelligent care industry at colleges and universities and carrying out

training and learning for practitioners of intelligent care institutions, we can continuously import professionals for intelligent care industry to improve the problem of talent shortage. On the other hand, cooperation and exchange should be carried out. For example, elder care institutions regularly organize doctors to check the elderly through cooperation with community hospitals, so as to avoid talent waste and save talent cost. In order to better meet the different needs of elderly care services and improve the service quality, we should explore the establishment of the talent certification mechanism of elderly care industry. The practitioners of elderly care industry must hold relevant work qualifications and certificates before taking up their posts, so as to provide the elderly with better quality life, medical treatment, psychology, leisure and other comprehensive services.

3.4 Implement intelligent elderly care publicity to form an intelligent elderly care atmosphere

Due to the rapid development of science and technology and the slow learning ability of the elderly group, most of the elderly groups do not understand the concept of intelligent elderly care, and even have resistance. Therefore, exploring innovative publicity and promotion methods, popularizing the concept of intelligent elderly care and creating a good social atmosphere have become problems that need to be studied and solved. On the one hand, government units should strengthen the publicity of relevant contents of intelligent elderly care, such as making use of the advantages of traditional media such as TV, newspaper and radio in the elderly group. At the same time, carry out all-round and multi angle publicity in the streets and communities to explain the advantages of intelligent elderly care. On the other hand, it is necessary to encourage social organizations, enterprises, elderly education and other enterprises and institutions to carry out information-based knowledge and skills training for the elderly, so as to promote the elderly group's learning and understanding of intelligent elderly care from the side, so as to achieve the effect of publicity. By identifying the promotion methods, it can help the elderly more easily accept the concept of intelligent elderly care, and create an environment and atmosphere of intelligent elderly care for the society.

4. Conclusion

Intelligent elderly care is a management system and information platform for the elderly at home, communities and elderly care institutions. On this basis, it provides real-time, fast, efficient and low-cost, instrumentation, interconnection, and intelligence elderly care services. China has become a large aging country, and the transformation and upgrading of elder care industry is imminent. In the context of the Internet, the project actively explores innovative ways of intelligent elderly care, creates a new development model of online and offline integration, brings new direction and power to the development of elderly care industry, and truly makes the elderly worry free for elderly care.

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