

Exploration of Community Wisdom Senior Care Service Mode under the Perspective of "Internet+"

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Abstract

With the deepening of population aging in China, the problem of elderly care is becoming more and more prominent, and the elderly care industry is also developing rapidly, with technologies such as Internet of Things, big data and artificial intelligence bringing unprecedented opportunities for the development of intelligent elderly care industry. The "community wisdom elderly care" model uses information technology to provide more accurate and high-quality services for the elderly, which provides new ideas for the construction of a new elderly care service system and industrial development in China. This paper researches the current situation of the development of community smart elderly care model, analyzes the current situation of elderly care, and puts forward countermeasures and suggestions to improve the smart elderly care system and develop the silver hair industry, aiming at achieving the growth of the elderly care service market and providing better elderly care environment and services for the elderly.

Keywords

Smart Senior Care; Community Senior Care; Internet+; Aging.

1. Introduction

According to the data of the 7th National Census in 2020, the total population of China reached 1.41 billion in 2020, with an average population growth rate of 0.53%, down 0.04 percentage points from the average annual growth rate of 0.57% in the 6th Census in 2010. In the proportion of the population in each age group, 18.7% of our population is over 60 years old, 13.5% is over 65 years old, and 19.7% is elderly dependency ratio. The above data show that China's population has continued to grow at a low rate in the past decade, and the aging of the population has further deepened, and will continue to face the pressure of long-term balanced population development and rising demand for old-age security in the coming period. The traditional elderly care model can no longer meet and adapt to the needs of society in the context of "Internet+". As a new elderly care model, smart elderly care, adhering to the thinking of the Internet era and the information era, has received widespread attention and research because of its intelligent features. The community wisdom elderly care is based on the community elderly care, using the Internet of Things, Internet, mobile Internet technology, cloud technology, GPS positioning technology and other information technology to create a "system + service + elderly + terminal" wisdom elderly care service model, aiming to provide the elderly with more quality elderly care services, to meet their needs for daily life, medical health, humanities and entertainment. It aims to provide better senior care services to meet their needs in daily life, medical health and humanistic entertainment. With the rise of "silver-haired economy" and the strong support of national policies for the elderly industry, the intelligent elderly care industry also ushers in a good period of development.

2. The Development Status of Community Wisdom Elderly Model

2.1. Community Smart Aging Receives National Policy Support

In response to the current situation that our country's elderly aging and disability ration is increasing year by year, the State issued the "14th Five-Year Plan for the Development of the National Aging Industry and Senior Care Service System", deploying the development tasks of the aging industry and senior care services from 2021 to 2025, with the overall goal of promoting the synergistic development of the senior care industry and senior care services, constructing and improving the senior care service system, and improving the comprehensive supervision system of basic senior care services. The State Council issued the "14th Five-Year" Digital Economy Development Plan in early 2022, which also proposed the development of "Internet" in the current era. In the context of the current "Internet" era, it is proposed to narrow the digital divide through smart senior care services, strengthen the construction of information accessibility, meet the growing needs of the elderly, and release the consumption potential of the "silver-haired".

2.2. Community Smart Aging is Driven by the Current State of Family Structure

China's traditional raising model is mainly dominated by nursing homes and family retirement, with the family and offspring taking responsibility for the elderly. Data from the National Bureau of Statistics show that 70.3% of China's families are under three households (including three people) in 2019, the trend of family miniaturization is obvious, the pressure burden on children to support the elderly alone is high, and it is easy to cause family disputes, the service equipment of nursing homes is uneven and fails to fully meet the needs of the elderly for medical conditions, and it is difficult to provide comprehensive and professional services. The community smart senior care model, on the other hand, builds an online information platform, integrates various service provider resources and information resources, uses a large amount of service information as the data base, and supports the government, service enterprises and senior care institutions to make decisions at all levels through big data analysis and visualization design, breaking through the time and space and technical limitations of the traditional senior care model, and its main innovation lies in the use of intelligent products and technologies to provide its main innovation is to use intelligent products and technologies to build a living environment with real-time detection, intelligent warning and rapid response for the elderly, to ensure the health and safety of the elderly, and to effectively solve the problem of empty nest and improve the quality of elderly services.

2.3. Greater Potential for the Development of Community Wisdom Elderly Care Industry

According to Ai Media Consulting, the market size of China's senior care industry reached 8.8 trillion yuan in 2021, with a year-on-year growth of 22.3%, and the market size of China's senior care industry is expected to reach 10.3 trillion yuan in 2022, with a year-on-year growth of 16.7%. The construction of community senior care service system has also achieved remarkable results in recent years, with senior care brands such as Cheng He Jing, Fortunate Home, Jie Jia Tong and Tsubaki Xuan Mao mainly providing community daily care services and home services for the elderly. According to statistics, the number of senior care enterprises in China that have been established for 1-3 years has reached 98,728, 68,372 for 3-5 years and 77,026 for 5-10 years. A number of listed companies have laid out to enter the smart senior care industry and actively develop and promote technology ageing-friendly products, mainly Yanhua Intelligence, Neusoft, Wanda Information and Dean Diagnosis, etc. In 2021, Shanghai has updated to 20 smart senior care scenarios, covering four categories of safety protection, care service, health service and emotional care; in the same year, Sichuan Province released the "Smart Ageing-Appropriate Application Products and Service Promotion Catalogue", covering

seven categories of information technology for the elderly, home health care, life care, Internet health consultation, wearable health management equipment, portable health monitoring equipment, and self-service health testing equipment.

2.4. Community Wisdom Elderly Market Subject Gradually Young

With the development of the times, the thinking of the elderly has gradually become open from conservative, and the post-70s and post-80s have gradually become the main body of the future senior care market. Their overall economic ability, education level and health condition have been improved, their consumption consciousness and ability are stronger, their quality of life level has been improved, and their consumption structure has changed from basic living needs to spiritual, entertainment and experience needs, and the overall trend of consumption upgrade has been presented. The concept of old age and the way of old age of the new generation of elderly people have been transformed, and their unique consumption ability, consumption concept and consumption form will help upgrade the old age industry and the development of technology age-appropriate products.

3. Problems Faced by Community Wisdom Aging Model

3.1. Lack of Unified Standards in Industry Norms and Insufficient Publicity Efforts

Although the policy documents on senior care service standards and senior care industry currently formulated in China exist, they are few in number and low in completeness, and are mostly guiding suggestions and plans, lacking unified industry standards for wisdom health and senior care, where the standards include wisdom senior care product quality control standards, wisdom senior care information platform operation standards and wisdom senior care service standards. Some of the relevant regulations and plans that have been implemented are not very practical, and the government's guiding role in the policy is not sufficient, which leads to technical limitations, time limitations and space limitations in the implementation of the wisdom senior care industry, and the development deviates from the focus of meeting the needs of the elderly and solving the aging problem, and the market shows the phenomenon of "policy hot, market cold". The market shows the phenomenon of "hot policy but cold market".

The concept of smart senior care was first proposed by the National Office for the Aging in 2013, and the National Health and Welfare Commission have also made efforts to promote the development and application of smart senior care industry, but the government's publicity on smart senior care is not strong enough, the literacy of the elderly is relatively limited, their understanding of the policy is low, and their awareness and acceptance of the market is also low, resulting in their vague knowledge of the concept and their inability to truly participate in it. However, the government does not have enough publicity on the development and application of smart senior care industry.

3.2. Low Participation Rate of Market Organizations and Infantile Development of Industrial Service System

Smart senior care is led by the government, operated by social organizations and supported by enterprises, but the current participation rate of market organizations is low. The amount of investment in smart senior care services is high, and the research and development costs and labor costs of smart products and services are relatively high, but the consumption capacity of the elderly group is limited, and companies that sell at low prices will increase the risk of business operation, resulting in high investment risks. Most organizations face high pressure to achieve profit purpose and responsibility to provide high quality services. Compared with developed countries, China's intelligent senior care industry started late and the development of industrial service system is tender and still in the stage of preliminary exploration. The

domestic senior care industry has not formed an intensive business model, the cost of wisdom products is generally high, the two-tier division is serious, the development is limited, the capital invested is large, the capital recovery period is long and the return rate is low, the industry relies on a single platform, and it is urgent to form a systematic, perfect and effective business operation model.

3.3. The Elderly Groups are Caught in the Digital Divide Dilemma, and the Degree of Product Technology Empowerment is Low

The digital divide refers to the information gap and the trend of further polarization between rich and poor caused by the difference in the possession, application and innovation ability of information and network technologies among different countries, regions, industries, enterprises and communities in the process of global digitalization. In the current digital era, various technological innovations have been upgraded and a wide variety of smart devices are widely used. It is easier for young people to master the use of these devices, but because many older people have reduced visual functions, reaction abilities, learning abilities, coordination abilities, and other functions, they are caught in the digital divide dilemma in daily life, such as news consultation, dining and shopping, social communication, travel Travel, financial services, health care and other aspects have encountered a lot of inconvenience, such as taxi software, health code, cell phone payment, online registration, online shopping

Attaching importance to technology and empowering the senior care industry and services with technology is one of the important reasons for the long-term sustainable development of enterprises. At present, technology ageing products generally have low technical integration, among which most health management products stay in the data monitoring stage, and the technical innovation of hardware production and diversified hardware R&D supply cannot meet the diversified needs of the elderly.

3.4. Lack of Talents in the Wisdom Industry, and Greater Spiritual Needs of the Elderly Groups

There are few specialties in China for the elderly elderly service and management, and the relevant training institutions are not deeply involved in the elderly service industry, so there are few talents with professional knowledge and skills in the elderly. In recent years, with the rise of the silver-haired economy and the rapid development of the senior care industry, the demand for related talents and the type of demand are increasing, and there is a huge gap in the senior care population, which makes the already scarce resources even more scarce and restricts the development of the senior care service system. According to the statistics of the Ministry of Civil Affairs, excluding those engaged in home care services, at least 2 million caregivers are needed for the future elderly care industry. The current social recognition of the senior care industry is low, senior caregivers are being lost, there is a lack of professionals in the intelligent senior care industry, and the degree of professionalism needs to be improved.

With the change of the concept of elderly care, what the elderly need is no longer just a place to provide food, clothing, housing and transportation services, but more attention to dignity and psychology, so the essence of elderly care service should be to ensure that the elderly live a healthy, happy and dignified life.

4. Suggestions for Promoting the Development of Community Wisdom Elderly Care Model under the Vision of "Internet+"

4.1. Improve the Intelligent Elderly Service System and Promote the Integration of Medical and Health Care

Build a unified community wisdom senior care platform and provide supporting services. There are connectivity problems between current smart senior care systems and products and deficiencies in data sharing among users. The government should develop standard industry specification documents, increase financial investment, and build a third-party shared data platform to achieve synchronized information updates. Community workers can make exclusive service plans for the elderly based on their physical condition information and basic family information from the data platform, and other enterprises, organizations and volunteers can also be stationed on this platform. Technology companies can sell their own smart products: blood pressure meters, anti-shaking spoons, bracelets, blood glucose meters, etc.; medical institutions can develop special medical health boards to provide remote consultation services, medicine delivery services, health consulting services for the elderly, etc. At the same time, hospitals and senior care institutions can form special green channels, medical and nursing staff regularly visit community senior care institutions for regular checkups, and hospitals can also carry out "student exchange" activities, sending some of their medical and nursing staff to senior care institutions every once in a while to provide professional and short-term care services for the elderly; volunteers can be sent by schools or social organizations to community senior care institutions on a regular basis to provide care activities for the elderly and popularize the knowledge of using smart facilities, etc.

At the same time, we can also learn from the American model to build O2O senior care platform, so that the service provider and the served can be directly connected, where the service provider can be a college student caregiver or a social caregiver, who can use their leisure time to provide care services for the elderly, forming a "win-win" situation for both sides. The service provider gets an hourly wage and the person being served enjoys a warmer and safer service. Through the linkage of government, enterprises and social organizations, the current intelligent elderly care service system is improved and the development mode of "Internet+Medical Care" and "Elderly+Platform+Service" is promoted.

4.2. Provide Market-oriented Services and Support Related Silver Hair Industry

The current smart senior care is an important segment of the senior care industry. As the smart senior care industry has not yet been fully marketed, 2022-2023 is a critical period for the layout and expansion of senior care enterprises, and the rational use of senior resources will activate new social luster and momentum. Community elderly care institutions should provide market-oriented services on the basis of completing the five basic service functions of day care services, catering services, health care, cultural entertainment and psychological comfort for the elderly, meet the personalized and market-oriented elderly service needs of the elderly groups, actively play the role of social market players, carry out independent industries of elderly care services for the elderly, and provide market-oriented services for operation when We should be careful not to rely too much on government subsidies.

From the perspective of the economic structure of the elderly population, the consumption capacity and population size of the elderly market is relatively large, but there is still a gap in the development of related industries. The "silver hair economy" has become a new blue ocean and sunrise industry for consumption upgrade. Based on its socialization, rejuvenation and intelligence characteristics under the background of "Internet+", the government should support the development of related silver hair industries, promote the integration of senior

care, health, culture, tourism, sports and other industries, and establish and improve the integration of upstream industries. The government should support the development of related silver-haired industries, promote the integrated development of senior care, health, culture, tourism, sports and other industries, establish and improve the industrial chain of upstream, midstream and downstream industries: upstream industries mainly include health care products industry, pharmaceutical industry, auxiliary equipment industry; midstream industries mainly include senior food industry, medical rehabilitation industry, health care industry, nursing care industry, tourism and leisure industry; downstream industries mainly include senior care real estate, senior care financial service, funeral industry, in addition to stimulating most of the Derivative industries: silver-haired elderly re-employment psychological guidance, silver-haired re-employment talent exchange forum, elderly education and training institutions, etc. While multiple industries are developing synergistically, enterprises need to layout online and offline platforms, explore diversified business models and form a complete industrial chain.

4.3. Cultivate a Professional Talent Team and Develop a Reasonable Training System

The fundamental reason for the lack of talents in the wisdom of the elderly industry is the lack of training conditions. Nowadays, the elderly market tends to diversify and diversify, the elderly need differentiated services, and the wisdom of the elderly also needs professional talent construction as support. Firstly, we need to develop suitable talent training programs, firstly, increase relevant job settings in social work, secondly, build a school-enterprise cooperation platform in education resources, open senior care-related majors and courses, establish professional training bases, and carry out systematic training of senior care service talents, and finally, popularize senior care service knowledge on information platforms, enhance the social recognition of related majors, and improve the professional recognition of service talents Secondly, the government should improve the education and training system, give relevant subsidies, increase the training of talents in the elderly service industry, broaden the channels of talent training, train talents in a diversified and multi-level manner, and improve the professional quality of practitioners; thirdly, the government should explore innovative service mechanisms, adjust and update the training forms at any time in the face of the ever-changing information and interconnection era, set different service talent requirements, and regularly carry out the latest This is a positive response that will not be eliminated by the times; fourth, to establish a suitable salary, incentive and promotion system, to improve the salary and welfare level of senior care service practitioners, to enhance their overall treatment level, to reduce the brain drain rate and to ensure the stability of practitioners. Cultivating a professional senior care service talent team will lay a solid foundation for community wisdom senior care, thus indirectly improving the quality of professional talents.

4.4. Enhance the Suitability of Technology for the Elderly and Pay Attention to the Diversified Needs of the Elderly Groups

The current technology and product development market has a general problem in adapting to the elderly, and their design ageing degree will directly affect the quality of life and life health of the elderly, so making ageing modification or improving technology ageing suitability is now the new entrance to the elderly market. The country has launched many age-appropriateness measures in its policy, and the post-70s and post-80s have become a new generation of retirees, whose thinking is gradually rejuvenated, but due to the general degenerative changes of the elderly group in different degrees, improving the age-appropriateness of technology products can be started from the following aspects: increase the age-appropriate UI design, choose to switch in the APP by yourself, freely adjust the font size, expand the line spacing, enhance the color contrast, use eye protection color, highlight key functions, adopt anthropomorphic design,

etc.; improve the interaction experience design of products to ensure the smoothness of operation for the elderly, making the screen clickable and easy to click; emphasize the help of voice function, increase the volume, reduce the speed of speech, AI technology to assist input, use selection instead of input, shorten the operation process, strictly prohibit the appearance of advertising content, etc. to make it more convenient for the elderly to search for Information; improve the service quality of products, provide exclusive customer service channels for the elderly, and adopt real-life dialogue services.

Elderly services should be targeted to achieve accurate services. First, focus on demand, clarify the specific use scenarios of the products, provide corresponding services for most of the needs in the elderly institutions, provide care needs for the disabled elderly, provide care needs for the demented elderly, etc.; second, focus on care, use technology to reduce the pressure of manual care and family companionship, improve efficiency and reduce costs; third, focus on humanism, while using intelligent products to improve humanism and Thirdly, we should focus on humanism, not to rely too much on smart technology, but to "empower" the elderly around their behavior and emotions, and to carry out various recreational activities and learning activities for them. Improve the suitability of technology for the elderly, pay attention to the diversified needs of the elderly groups, and help the efficient implementation of the community wisdom elderly model.

5. Conclusion

In the context of the "Internet+" era, the development of the community wisdom elderly industry needs to keep pace with the times and connect the elderly groups with intelligent technology means, while the elderly industry ushers in opportunities and also different challenges and risks. As a typical country with a serious aging population, China must pay attention to the problems faced by the community wisdom senior care model, such as the lack of standards in industry norms, low popularity among senior groups, infantile market development, low degree of product technology empowerment and lack of talents in the silver hair industry, actively promote the improvement of the wisdom senior care service system, increase the government's support for the development of the "combination of medical care The study also aims to increase the government's support for the development of the "medical care integration" model, improve the recognition and awareness of the elderly groups to the smart senior care industry, continuously integrate the silver hair industry, establish a sound standardization system for the senior care service industry, and cultivate a professional talent team, so as to minimize the cost and risk of the development of the senior care industry and ensure the healthy and orderly development of the smart senior care. In conclusion, this study mainly considers the demand and market of the elderly groups from the government, society and enterprises, and proposes a new perspective of exploring the community wisdom elderly care model under the perspective of "Internet+", but there are still defects in the level of consideration, and how to carry out the silver hair industry has not yet been discussed and investigated in depth, and there is still a need for future research. In the future, we need to put more effort into studying the construction of the smart senior care platform and the market-oriented development measures of the senior care industry, so as to alleviate the dilemma of the development of the community smart senior care model, break through the development bottleneck, and allow the elderly to obtain humanized and personalized senior care services in the areas of medical, health, nursing and care, thus effectively enhancing the sense of technological experience of the elderly and promoting the sustainable development, stability and harmony of the national economy and society.

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