

EXPLORING THE HOME-BASED ELDERLY CARE MODEL FROM THE PERSPECTIVE OF SMART ELDERLY CARE

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ABSTRACT

With the acceleration of population aging and the rapid development of information technology, smart elderly care has become an important way to solve the problem of home-based elderly care. This article aims to explore the home-based elderly care model from the perspective of smart elderly care, analyze its connotation, characteristics and challenges, and propose corresponding strategies and measures. Through research methods such as literature review, case analysis, and logical reasoning, this paper reveals the necessity and possibility of combining smart elderly care with home-based elderly care, and provides theoretical basis and practical guidance for promoting the innovation and development of home-based elderly care models.

Key words: *Smart elderly care; Home care; Information technology; Service model*

1. INTRODUCTION

At present, the phenomenon of population aging is becoming more and more serious around the world, and the demand for elderly care services for the elderly is growing. As one of the traditional ways of providing for the aged, home-based care is favored by more and more elderly people with its unique advantages. However, there are many deficiencies in the traditional home-based pension model in terms of resource allocation and service quality. As a new type of elderly care model, smart elderly care uses modern information technology to improve the quality and efficiency of elderly care services, and provides new ideas for solving problems in home-based elderly care.

2. THE CONNOTATION AND CHARACTERISTICS OF SMART ELDERLY CARE

The connotation of smart elderly care, in short, refers to the use of modern information technology, especially the Internet, big data, cloud computing, etc., to provide comprehensive, personalized and intelligent elderly care services for the elderly. This service not only covers the daily care of the elderly, but also includes health management, emergency rescue, emotional communication, knowledge

education and other levels. The implementation of smart elderly care aims to improve the quality of life and self-care ability of the elderly, so that the elderly can enjoy a more convenient, comfortable and dignified life in their later years.

The first feature of smart elderly care is technological advancement. Through the application of high-tech products such as smart wearable devices, home automation systems, and telemedicine platforms, the lives of the elderly have been greatly facilitated. Smart bracelets can monitor health data, smart homes can realize remote control, and telemedicine allows the elderly to enjoy professional medical services at home. The application of these technologies makes elderly care services no longer limited by time and space, and the elderly can obtain necessary help at any time and anywhere.

The second feature of smart elderly care is personalized service. Everyone's needs are unique, especially the elderly. Due to differences in health status, living habits, hobbies, etc., their needs for elderly care services are even more different. Through big data analysis, smart elderly care can accurately grasp the needs and preferences of each elderly person, so as to provide customized service solutions. Whether it is diet management, exercise plan, or the choice of entertainment activities, it can be optimized according to the actual situation of the individual to ensure that the service is considerate and appropriate.

The third feature of smart elderly care is resource integration. In the traditional pension model, pension services are often scattered in different institutions and departments, lacking effective coordination and integration. By building a unified information platform, smart elderly care integrates multiple resources such as the government, communities, medical institutions, and service providers to form an interconnected, shared and win-win elderly care service network. This model not only improves service efficiency and reduces operating costs, but also realizes the optimal allocation of resources, so that every elderly person can enjoy high-quality elderly care services.

The fourth feature of smart elderly care is sustainable development. With the development of society and economic growth, people's demand for elderly care services will continue to grow. Through continuous innovation and technological upgrading, smart elderly care can adapt to this change and meet more diversified and high-end elderly care needs in the future. At the same time, smart elderly care can also promote the development of related industries, such as health industry, information industry, service industry, etc., drive economic transformation and upgrading, and achieve sustainable social development. As an emerging elderly care model, smart elderly care has rich connotations and distinctive features. It not only reflects the progress of science and technology and humanistic care, but also shows deep insight and active exploration of future pension life. With the continuous maturity of technology and the full acceptance of society, smart elderly care will surely become an important force to improve the quality of life of the elderly and enhance the level of elderly care services, adding more possibilities to the happy life of the elderly.

3. CURRENT SITUATION AND CHALLENGES OF HOME CARE FOR THE ELDERLY

The primary challenge is health care. With age, older people tend to face a variety of health issues that require regular medical checkups and treatment. The limitation of aged-in-home care in this regard is that older persons may not have timely access to professional medical services, especially in emergency situations. In addition, family members may lack professional medical knowledge and nursing skills to meet the care needs of the elderly.

Secondly, the imperfect social support system is also a challenge faced by home care. Although the government and social organizations have made a lot of efforts in this regard, there are still problems

such as insufficient service supply and uneven service quality. The existence of these problems makes many families feel powerless when facing the elderly at home.

Furthermore, economic pressure is also a factor that cannot be ignored. The cost of home care services is often high, and for ordinary families, bearing these expenses for a long time may be a financial burden. Moreover, as the health status of the elderly changes, the content and frequency of services required will also increase accordingly, which will undoubtedly increase the economic pressure on families.

4. HOME-BASED ELDERLY CARE MODEL FROM THE PERSPECTIVE OF SMART ELDERLY CARE

The home-based elderly care model is one of the core contents of smart elderly care. It allows the elderly to spend their old age in the comfort of their own home, enjoying a familiar and comfortable living environment. This model can not only maintain the living habits and social relations of the elderly, but also reduce the pressure on traditional elderly care institutions. With the support of smart elderly care, the home-based elderly care model can provide more accurate and convenient elderly care services through intelligent equipment and services.

The advantage of smart elderly care lies in its high degree of personalization and customization. Through smart wearable devices and home sensors, the health status of the elderly can be monitored in real time, and abnormalities can be detected and responded in time. For example, smart bracelets can monitor vital signs such as heart rate and blood pressure, and smart mattresses can analyze sleep quality. This data is transmitted to healthcare providers via the Internet, making telemedicine and health management possible.

In addition, smart elderly care can also provide daily life support. The smart home system can automatically adjust the indoor temperature, lighting and the operation of home appliances according to the needs of the elderly. Intelligent robots can do simple housework, such as cleaning, carrying goods and so on. The application of these technologies has greatly improved the convenience and safety of home care for the elderly.

However, smart elderly care also faces some challenges. The first is the popularization and application of technology. Although smart elderly care technology is developing rapidly, there are still many obstacles in practical application, such as high costs, the acceptance of new technologies by the elderly, and the improvement of related infrastructure. The second is the continuity and stability of services. Smart elderly care services need to operate 24 hours a day, and any technical failure may lead to service interruption and affect the lives of the elderly.

In order to overcome these challenges, the government and all sectors of society should work together. On the one hand, it is necessary to increase investment in research and development, reduce the cost of smart elderly care products, and improve their reliability and ease of use. On the other hand, training and education for the elderly should be strengthened to help them better adapt to the smart elderly care environment. At the same time, establish a sound service system and emergency mechanism to ensure the continuity and stability of services.

In short, the home-based elderly care model from the perspective of smart elderly care is an innovative elderly care method, which can provide more personalized and intelligent services, so that the elderly can enjoy high-quality elderly care life at home. Through continuous technological innovation and service optimization, smart elderly care is expected to become an effective way to solve my country's elderly care problems.

5. IMPLEMENTATION STRATEGIES AND MEASURES

The core of the home-based pension model is to allow the elderly to enjoy their old age in their own family environment, which can not only meet the dependence of the elderly on the familiar environment, but also reduce the pressure on traditional pension institutions. However, in order to realize the efficient operation of this model, it must rely on the concept and technical support of smart elderly care.

Smart elderly care refers to the use of modern information technology, such as the Internet, big data, artificial intelligence, etc., to provide comprehensive and personalized elderly care services for the elderly. In the home care model, the application of smart technology can greatly improve service quality and efficiency, making the life of the elderly safer, more comfortable and more convenient.

In order to effectively implement the home-based elderly care model, we need to start from the following aspects:

5.1 Establish and improve the information service platform.

By building a smart elderly care service platform integrating health monitoring, emergency rescue, life services, cultural exchanges and other functions, it can realize rapid response to the needs of the elderly and efficient allocation of service resources.

5.2 Promote smart home technology.

The smart home system can monitor the living conditions of the elderly in real time through sensors, such as sleep quality, range of motion, etc., and call the police in time under abnormal circumstances to ensure the safety of the elderly.

5.3 Develop community integration services.

Encourage the integration of resources such as medical institutions, convenience stores, and cultural centers in the community to form a one-stop service network to provide convenient medical care, shopping, and entertainment services for the elderly.

5.4 Cultivate a professional talent team.

Strengthen the training and education of elderly care service personnel, especially in the application of smart technology, to improve their professional ability and service level.

5.5 Formulate relevant policy support.

The government should introduce corresponding policies and measures, such as tax incentives and financial support, to encourage social capital to invest in the field of home-based elderly care services and promote the development of the smart elderly care industry.

5.6 Strengthen the integration of family and society.

Advocate the elderly care service model of "family-based, community-based, and institution-supplemented", give full play to the caring role of family members, and at the same time use social resources to provide professional services.

5.7 Pay attention to the mental health of the elderly.

By carrying out psychological counseling and organizing cultural and sports activities, we should pay attention to the spiritual needs of the elderly and improve their quality of life.

In short, the implementation of the home-based elderly care model from the perspective of smart elderly care requires the joint efforts of the government, society and families. Through the combination of scientific and technological means and humanistic care, we can provide the elderly with a warmer, safer and more convenient elderly care environment, making their later life more colorful.

6. CONCLUSION

The home-based elderly care model from the perspective of smart elderly care is an effective way to deal

with the challenges of population aging. By integrating the advantages of modern information technology and home-based elderly care, the quality and efficiency of elderly care services can be improved to meet the diverse elderly care needs of the elderly. In the future, we should continue to deepen the integration of smart elderly care and home-based elderly care, promote the innovation and development of the elderly care service system, and provide a safer, more comfortable and convenient home-based elderly care environment for the elderly.

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