# Research on the Development of Elderly Health Management in the Context of Digital Empowerment

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**Abstract:** Through a detailed analysis of the results of the 7th national population census in 2012, it can be found that the current population aged 60 and above accounts for about 18% of the total population, marking the deepening of the aging process in China at this stage. As a frequent group of chronic diseases, the health status of the elderly should not be ignored. With the continuous improvement of the development level of modern information technology in China, digital technology and Internet technology have gradually become a common and important way in the field of medical diagnosis by virtue of their diversified functions. Therefore, this paper conducts a detailed study on the development of elderly health management in China under the background of "digital empowerment" to ensure that the quality of patient privacy and data security is further improved, so that the elderly can obtain more happiness and security in the health field.

#### 1. Introduction

In December 2020, the Health Commission of China issued a series of policies and notices, clearly proposing that local health administrative departments should take into account the actual situation of the local people, especially the urgent care needs of the disabled, elderly and disabled elderly, and make overall planning for medical resources to ensure that medical institutions can reasonably improve the level of medical service supply under the guidance of policies, notices and other documents. In the context of "digital empowerment", "Internet plus nursing service" is fully integrated with diversified service needs and service modes such as family beds, family doctors, contracted continuity nursing, and can provide differentiated and personalized nursing services for the elderly. The probability of the elderly people suffering from chronic diseases is high, which not only lasts a long time, but also has high complexity. At the same time, in the context of "digital empowerment", the elderly health care system involves more content, leading to the gradual weakening of the effectiveness of the traditional single medical, health, pension undertakings or industries. Therefore, we must strengthen the active exploration of the development level of elderly health management.

# 2. Actively Promote the Joint Development of Digital Medical Care, Digital Medicine and Digital Medical Insurance

The development quality of Internet medicine is mainly determined by the implementation of the traditional offline medical system and medical insurance system. Internet medicine should start with registration, consultation, guidance, pharmaceutical services, post hospital follow-up and other links to establish a highly integrated business closed loop. At this stage, almost all elderly groups benefit from the sound development of China's medical insurance system. It can be seen that to ensure that Internet medical care, medicine and medical insurance achieve the goal of joint development, the radiation of Internet medicine should be extended to the "last mile" in the field of elderly health management, so as to give full play to the important role of Internet medicine in elderly health management<sup>[1]</sup>.

Under the background of "digital empowerment", to ensure the coordinated development of digital medical care, digital medicine and digital medical insurance, we should start from the

following aspects:

First, medical institutions in all regions should conduct a comprehensive survey of the Internet medical projects covered by the existing medical insurance, systematically sort out the relevant contents, and ensure that the established online medical insurance directory is highly clear and comprehensive. Second, in the process of reasonably expanding the coverage of medical insurance, medical institutions should also set the payment standards and price levels of various medical services in combination with the actual situation, and take them as the basis for patients to reimburse medical insurance. Third, in the context of "digital empowerment", Internet-related medical entities should reasonably allocate their own interest-related expenses in the medical system and formulate corresponding allocation mechanisms. This is because there are many related subjects involved in the Internet medical system, including not only doctors and patients in the traditional medical system, but also resource providers who can provide technical support for various medical work. Therefore, we must reasonably design the cost allocation scheme in the Internet medical system based on the actual situation. Fourth, local medical institutions should take Internet medical care, medicine and medical insurance systems as the starting point, integrate them effectively, and take this opportunity to comprehensively build hospital information systems and medical insurance information systems, Internet databases and data platforms. By means of "Internet +social medical insurance card", the efficiency of real-time settlement for people seeking medical treatment in different places has been comprehensively improved, so as to facilitate the realization of health management in different places for the elderly group, and improve the sense of access, security and happiness of the elderly group<sup>[2]</sup>.

#### 3. Strengthen the Effective Implementation of Patient Privacy and Data Security

From the perspective of relevant standards and specifications of the elderly health management industry in China, although the establishment of the Internet medical system can facilitate the elderly to carry out health management, in the actual implementation process, the relevant data rules and standards lack the necessary perfection. Although in the process of obtaining the physical health data of the elderly, the Internet of Things or wearable devices can be used to upload the health data of the elderly to the cloud to facilitate medical subjects to carry out various work, such data information involves the privacy of the elderly themselves, and if used improperly, it is very easy to cause unnecessary trouble to the elderly<sup>[3]</sup>.

Under the Internet medical system, through the effective use of modern information technology, the physical health information of the elderly can be transformed from unstructured data to standardized structural information, which can be presented in the form of data assets. These data assets can provide greater value for promoting the development of medical and health undertakings and medical businesses. However, the maintenance of financial data assets is difficult and the cost of investment is high. Therefore, in order to ensure the effective maintenance of elderly health data assets, we can try to improve them from the following aspects:

First, in the process of collecting Internet medical care data, medical insurance data and medicine data, medical institutions must ensure that all measures taken have high security and legitimacy, and reasonably set the data collection authority within the controllable range. Second, elderly users should be given the greatest choice right through the Internet launch terminal, and the situation of forcibly collecting patients' health privacy information should be resolutely put an end to. Third, for unnecessary health data information, medical institutions must strictly follow the principle of "no collection unless necessary". Fourth, in order to ensure that medical care data, medicine data and medical insurance data can achieve the goal of sharing, we should strengthen the active establishment of industry data circulation standards, and for data that can promote the health of the elderly, we should share within a controllable range<sup>[4]</sup>.

#### 4. Strengthen the Continuous Improvement of Digital Literacy of the Elderly

For most of the elderly, in the context of "digital empowerment", they lack the necessary

knowledge of Internet medical information technology, have poor receptivity, and have an obvious "digital gap effect". As far as the "use gap" is concerned, there are some differences in the access to Internet medical equipment for the elderly in different regions. The elderly in economically developed regions have significantly higher access to and acceptance of Internet medical care than those in economically backward regions. It can be seen that economy is one of the important factors that restrict the widespread popularity of Internet medical care among the elderly in China<sup>[5]</sup>.

With the continuous improvement of China's social and economic development level, the number of elderly people who can access and use Internet medical equipment continues to increase. However, most elderly people lack the ability to master modern and advanced information equipment, especially under the influence of complex interfaces and fear of difficulties, it often happens that they actively give up using Internet medical equipment<sup>[6]</sup>.

As far as the "knowledge gap" is concerned, there are obvious differences between different elderly groups in the speed and efficiency of obtaining Internet medical diagnosis and treatment advice, which makes the improvement of Internet medical diagnosis and treatment effect slow. Many elderly people have a strong dependence on traditional medical models, and it is difficult to change their minds and accept the digital Internet medical model, which makes the inclusive way of Internet medical technology difficult to play its role among the elderly. In order to effectively reverse this situation, we can start from the following aspects:

First, China has always been known as a nation of ceremonies, and has a fine tradition of filial piety to the elderly. Under the background of the comprehensive popularization of digital technology, family children should establish the ideology of actively transferring new knowledge and skills to the elders, and purchase appropriate Internet mobile medical equipment for the elderly in combination with their own strength, so that the elderly can integrate into a new life model in the digital era and will not be eliminated by the times. Second, family children should encourage the elderly to actively learn about the Internet, understand digital technology, try to use Internet medical equipment, and actively teach them the use methods, principles and functions of various Internet medical equipment, so that the elderly can fully feel the positive changes brought by digital technology to their own bodies and lives, constantly improve their digital literacy, flexibly master Internet medical equipment, real-time monitor their own health indicators, and create a good environment for further improving the health management level of the elderly<sup>[7]</sup>.

#### 5. Conclusion

The aging characteristics of our society are becoming more and more obvious. In terms of family doctor signing, chronic disease management, medical care, mental health, telemedicine, health records, etc., digital technology can provide greater convenience for improving the health management level of the elderly. Relying on a series of digital means such as digital platform and Internet platform, we fully integrate community service, public health, insurance and health, medical medicine and digital technology, so as to completely solve the problems existing in the relevant work data in different traditional fields. While carrying out "integrated" management of the health of the elderly, we can provide technical support for the elderly to scientifically prevent diseases, realize the goal of digital community elderly care and digital home elderly care.

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