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Feasibility analysis of the construction of a smart medical pension platform

Chen Liang , Youxin Wang , Zixuan Zhu

School of Management Science and Engineering, Anhui University of Finance and Economics, Bengbu 233030, China

Abstract

With the high-speed development and application of China's modern science and technology, Internet technology has realized a deep integration in many industries in China and achieved considerable results, with a wide range of applications and ideal application effects. At the same time, China is facing the serious problem of population aging and the demand for medical treatment of the elderly. In such a social context, this paper proposes the general framework of the intelligent medical care for the elderly service platform, and the preliminary analysis and design of the intelligent medical care for the elderly service platform of the specific construction of the content of the framework, through the application of information technology to the intelligent medical care for the elderly platform of the construction of a strong impetus to further safeguard the people's health to provide information technology services. The construction of a smart medical aging platform will provide better medical aging services, through the cooperation with the community and hospitals to reach mutual mediation, with each other as the basis for the information sharing characteristics of the formation of an implementable smart medical aging platform implementation program.

Keywords

Internet+; smart medical care; informatization system; community aging.

1. Based on the "Internet +" intelligent medical care for the elderly hospital informatization platform function

Accompanied by the aging of the population continues to aggravate the proportion of the elderly population, and so does the number of elderly people. Compared with developed countries, China's elderly care problem is marked by rapid changes in its underlying foundation, alongside the progress and development of new-generation technologies including 5G technology. Internet of Things, cloud computing, and big data have gradually evolved into the driving force for China's medical care and elderly care to achieve further development and design, and have also prompted China's construction of smart communities to move forward. At present, China's Wisdom medical information technology development can not reach the aggregation of information, and can not mutually beneficial interoperability to achieve the sharing, Building a perfect Wisdom medical pension service platform will promote China's medical pension career reform work steadily. China has a high demand for old-age medical programs, due to the distribution of resources and the current system status quo, intelligent medical care for the elderly still has a lot of problems For example, the distribution of medical resources across the country is uneven, the east is higher than the west, the south is higher than the north, the coast is higher than the inland, the city is higher than the countryside. China's medical and nursing institutions display a wide array of characteristics and operational modes, the inability to interoperate user content blocked information channels, and a lack of sharing mechanisms. It is this less efficient medical care system in China, uneven distribution of

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resources, and the demand for a more and more complex status quo, that the elderly medical care problem has become an important topic of common concern to society as a whole. In this paper, we will actively explore the feasibility of combining the Internet with medical institutions, communities, and government agencies to cope with the increasingly serious problem of aging, and to alleviate the contradiction between the uneven distribution of medical and nursing resources and the increase in demand for medical and nursing care.

1.1. Information Sharing

Through the smart medical aging platform, users can upload continuous real-time testing data through the measuring equipment, assisting doctors in judging the user's situation, observing the user's health status, and preventing chronic diseases. This platform is mainly oriented to the elderly who are alienated from their children, and establishes the associated accounts of children and parents, to achieve information collection and sharing through the medical devices connected to the platform. As far as the children are concerned, The measurement data collected from their parents' devices will be transformed into a more user-friendly format of statistical information, revealing insights into their physical conditions. This information, derived from professional measuring equipment, can be analyzed through the intelligent platform, offering the parents valuable insights and unwritten results. At the same time, The platform fulfills a supervisory function by dispatching regular measurement reminders, thus aiding the elderly in avoiding forgetfulness and neglect of their health. The smart medical platform will operate on a community-based approach, enabling the completion of exams within community hospitals. This endeavor necessitates the involvement of extensive medical equipment and personnel. The objective is to empower communities to comprehensively understand health status within their locale and achieve meticulous customization of health records. For the elderly with a history of disease, the platform stores the patient's consultation records, prescriptions, examination results, and the implementation of medical advice during the consultation process. The establishment of the information platform facilitates doctors to observe the changes in patients' body data after the consultation, and notify patients to return to the hospital for consultation when abnormalities are found. Patients can set up regular medication through the platform, display the remaining amount of medication after taking medication, and send reminders through the platform again when they observe the record of not taking medication on the children's side.

1.2. Online Diagnosis and Treatment

An intelligent medical platform for the elderly will integrate the use of online consultation and offline community treatment of the two modes, focusing on common diseases and chronic diseases, for chronic disease patients to provide meticulous supervision mode, build a platform for doctors and patients to communicate with the user's community hospitals to synchronize the information to stay on file, to achieve a win-win situation for all parties.

When the user uses the intelligent medical care platform, after the platform certification and platform cooperation hospitals can provide an intelligent diagnosis. Mode 1 for digital analysis of the user's body data changes, through big data analysis of chronic diseases before the occurrence of data in the user's body abnormalities issued a reminder to send potential conditions to the children and the user's community hospitals in the archives, in the user's need to carry out a full-body checkup, in advance of the registration in the partner hospitals to send the abnormal data to the doctor, the doctor synchronized with the user's examination results and medical advice, if you need to take medication and follow-up After the consultation, the doctor synchronizes the user's examination results and medical advice, and if medication and follow-up examinations are required, he/she creates a schedule to urge the patient to complete the punch card task. Mode 2 for common diseases network consultation, after the cloud computing statistics of common diseases, causes, symptoms, guarding the treatment program.

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Users can fill in the current symptoms to get the conservative treatment program, such as the preparation of medicinal diets to clear heat, measures to reduce body temperature, the need to avoid the list of attention, and so on. Users can also send a list of diseases to the platform through the cloud computing consultation department to cooperate with the doctor, the doctor can diagnose according to the user's description, as well as the user's past medical history and physical data, such as the need to take medication will be synthesized prescription will be sent to the community sentinel pharmacy, in the pharmacist audit, the user can be self-pickup or takeaway to the home of the way the drug will be sent to the user. At the same time, the platform supports doctors to pay continuous attention to the user's abnormal data until the user's body recovers and exits the consultation mode.

2. Organization of the Text

In recent years, China has increasingly strengthened the importance of intelligent medical care, the General Office of the CPC Central Committee and the General Office of the State Council issued the "Opinions on Further Improving the Medical and Health Care Service System" to convey the important guiding ideology of Xi Jinping's thought of socialism with Chinese characteristics in the new era as a guide, in-depth implementation of the spirit of the twentieth CPC National Congress, the protection of people's health is placed in the priority of the development of the strategic position, and the implementation of the Party's health and health in the new era. The construction of the smart pension platform has important forward-looking practical significance for the practical development of China's modern medical field and the breakthrough of the new community pension model. In the process of building the content of the intelligent medical care for the elderly platform, the implementation of customer groups, large-scale unified intelligent question and answer for user needs, while customizing the personal exclusive pension strategy, in the process of follow-up work, the user to provide customized unique pension medical services, according to the user's data statistics on the physical condition of the elderly in the community to facilitate the community and the hospital's medical resources to carry out targeted, intermittent scheduling.

3. Business Framework of Intelligent Medical Elderly Platform

In the construction of the intelligent medical care for the elderly service platform, the intelligent medical care for the elderly platform information system construction is the key content of the platform which includes the focus on the intelligent medical platform infrastructure construction, the intelligent medical care for the elderly cloud platform construction, the intelligent medical care for the elderly big data platform construction part[1].

Wisdom Medical's Old-age Care infrastructure construction is the important foundation of Wisdom Medical's old-age care service platform, wisdom medical care service platform infrastructure construction will be the Internet as the core technology for Wisdom Care medical condition environment creation, strengthening Wisdom Medical's old-age care basic support. Intelligent medical care for the elderly infrastructure will be composed of three parts, namely, intelligent medical care for the elderly, network facilities, intelligent medical and health data service platform, and intelligent medical care for the elderly information platform. Pursuing the development of security in the construction of the network facilities platform for smart medical care for the elderly, and strengthening the information infrastructure construction to meet the demand for smart medical care for the elderly by the needs of the development of smart medical care for the elderly. Establishment of the basic network in the context of adapting to artificial intelligence 5G technology and big data. The platform will initially carry out the preliminary design in second and third-tier aging cities event communities where the aging population gathers. Gradually expand to urban and rural areas of the designated elderly medical

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institutions for the future of artificial intelligence in the medical care of the elderly region of the remote deepening of the application to provide support and protection. Secondly, it is necessary to build a big data platform for intelligent medical and senior care services. Constructing intelligent medical and senior care services big data platforms is a fundamental goal in the establishment of intelligent healthcare systems. the use of big data platforms allows users to screen the correct service items, and when medical services are needed, they can quickly provide their personal health status and history of medical treatment, through the construction of intelligent medical and senior care platforms, they can realize the sharing of data resources and improve the utilization rate of medical resources, as well as the consultation process. Through the construction of the smart medical care platform, it can realize the sharing of data resources, improve the utilization rate of medical resources, make the process of medical treatment simpler, and reduce the drawbacks related to the data not being synchronized and shared due to the different ports in different hospitals. At the same time, users can transfer their medical records to the community service platform through their permissions, thus realizing the effective circulation of data and information from community medical institutions and the sharing of resources. Finally, an intelligent medical care and elderly care service basic support platform is established to establish a unified intelligent elderly care big data sharing and exchange management and application integration framework to realize intelligent medical care and elderly care health data resource sharing, identity authentication, and the composition of the access page. Users through the binding of identity applicable to multi-user fast and efficient use of easy to manage the smooth flow of data and efficient sharing of resources. Intelligent elderly healthcare service platform support platform for the elderly in the community to establish unified identity management, different user roles, and organizational norms management. Through the use of a unique identity authentication access portal to realize the various application systems seamlessly and efficiently flow of resources.

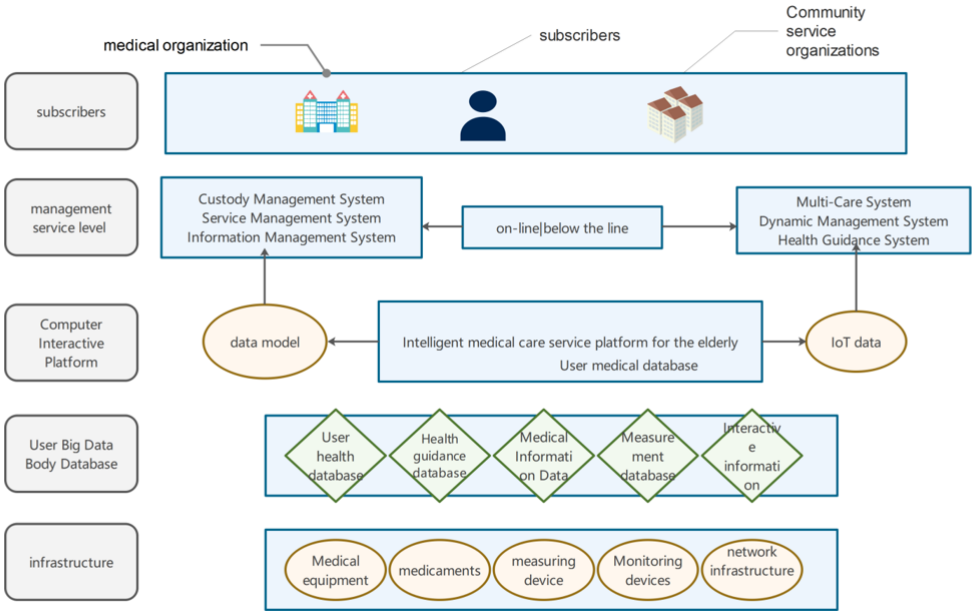

Fig. 1 Overall Architecture Model of Medical Elderly Service Platform

4. Intelligent Medical Elderly Platform

The construction of the intelligent medical care platform for the elderly is a complex project that integrates family modules and statistical regional chains, which includes the collection of

physical supervision and self-testing data for the elderly living alone under self-care conditions and includes business applications such as medical care and rehabilitation, and the construction of a standardized and normalized physical monitoring system and safety guarantee system. Based on the centralized medical care needs of the community of elderly living alone, the overall framework model of the intelligent medical care user platform is constructed by combining 5G technology, artificial intelligence, big data, cloud computing, and other new information technologies. The establishment of the smart medical care for the elderly platform First of all, To ensure effective guidance, the government departments should strengthen the establishment of relevant laws and regulations. The relevant government departments in China should recognize the existing problems in the construction of the intelligent medical elderly platform at this stage and build corresponding laws and regulations to effectively guide the construction of the intelligent medical elderly platform through the law to protect the interests of the people and the rights and interests of the medical development process, and at the same time, the government departments can strengthen the support for the construction of the intelligent medical elderly platform. Through the establishment of special funds to set up a special group to ensure that China's medical pension service system, achieves stable and sustainable development, provides the general public with better quality medical pension services, and further solves the health and safety problems of China's aging population living alone. Secondly, it is necessary to strengthen the integration of the intelligent medical and nursing service platform with new technologies, such as cloud computing technology, 5G technology, and data and information technology, to build a perfect data analysis system through the integration of resources to ensure that the data and information can play the greatest value. The aging of the population continues to worsen. The proportion of the elderly population is increasing, and the construction of intelligent medical care for the elderly service platform is an inevitable trend in the future development of our country, the depth of integration of community medical resources, to carry out scientific and reasonable planning, to ensure that the medical resources can be efficiently utilized for the construction of intelligent medical care for the elderly platform to lay a solid foundation. Finally, the establishment of a big data decision analysis mechanism With the wide application of big data analysis and decision-making mechanisms in all walks of life, the establishment of a big data decision analysis mechanism in the field of intelligent medical care and pension services will efficiently solve the problem of community elderly population pension medical care for the development and construction of the pension industry, the construction of an intelligent medical care and pension platform is very important, and it is necessary to set up a better information technology ideology. To truly optimize the comprehensive effect of information platform construction, we need to demonstrate its comprehensive value and impact.[2]

5. Several development directions of wisdom medical

The development of intelligent medical care for the elderly is in the primary stage, and it is important to choose and judge the direction of future development. The development of intelligent medical care for the elderly requires joint information technology, cloud computing technology, and other developments and applications.

5.1. Deep integration of smart medical platform and 5G technology、

Accompanied by the operation of the 5G network construction, the main elements that affect the formation of the smart medical network are the degree of wisdom of the medical and nursing care industry, the spatial field, and the types of services. The construction of the smart senior care medical platform will unite the resources of users, communities, hospitals, governments, and other parties to form a tightly coupled Internet integration platform. The types of services include but are not limited to, a full map throughout the use process and a

unified data display of diagnosis and treatment between the user and various organizations within the platform. The combination of the smart medical platform and 5G network enhances the convenience and security of users while optimizing the administrative service process of medical institutions to reduce the workload of medical staff. The establishment of the smart medical aging platform will promote the rational allocation of regional medical resources. Patients, doctors, medical data, and relevant government medical policies are important components of the smart senior care platform. For the people's high-quality medical care for the elderly, health environment for a full range of optimization experiences.

5.2. Sharing and transmission of data and information on the intelligent medical platform

Under the premise of safeguarding data security and reasonable application, the intelligent medical care platform will provide relevant big data analysis, mining, and other technical support to the cooperative hospital community. Standardization and refinement of management to achieve sustainable development of the strategic transformation purposesTo ensure comprehensive healthcare services, it is important to implement healthcare management, provide healthcare education, and incorporate the use of intelligent medical measurement devices into teaching. Create a close-knit community medical association Smart medical care for the elderly public service system accelerates the upward and downward communication of the association's resources, promotes effective communication of information, and facilitates the construction of an orderly pattern. Improve online common disease diagnosis and treatment, and realize remote diagnosis and online appointment clinic functions. The sharing and transmission of data on the intelligent medical care and elderly care platform provides data support and statistics for the diagnosis of diseases by medical institutions.

6. Conclusion

The construction of the smart healthcare platform for the elderly includes modules such as user data detection, community healthcare filing, hospital medical data synchronization, system construction, information security, and remote cooperative doctor consultation, which enables users to organize real-time data. An intelligent medical construction model can be used to form a large-scale medical data platform and regional data management center, and at the same time can realize the interoperability and interconnection between users and hospitals through the online communication of cooperative doctors. In summary, based on China's vigorous development of the digital economy, The integration of digital infrastructure construction with the industry will be further reinforced, the establishment of smart medical care for the elderly platform, the construction of digital scenarios cloud computing model, to strengthen the protection of the physical health of the elderly living alone, to further improve the probability of preventive diseases due to the inability of continuous statistics, to ensure that the elderly services are more refined and standardized, connecting doctors to guide and provide high efficiency, high-quality medical service experience, show the advantages of the intelligent medical care and pension platform, promote the balanced layout of medical regions, promote the improvement of high-quality medical care and pension resources, and create a new direction for the future development of medical care and pension.

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