

Research on Precision Health Management Model and Application Analysis

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Abstract: With the development of network technology, various industries have begun to adopt people-oriented management based on big data technology, such as precise positioning, precision education, precision health, etc., which have become hot words for the general concern of the society and the prologue of the times. In the field of medical and health care, precision health intervention and precision medicine are developing in full swing. As a new health management model, the application of precision health management model in the new era can provide inspiration for the development of precision medicine and health. Therefore, the following article mainly focuses on the application research of precision health management. The aim is to explore more optimized and perfect models to meet the needs of social development.

Keywords: Precision Health Management Model; Application Status; Optimization Measures

The concept of "precision medicine" was first proposed by the American medical community as early as 2011. Based on the concept of precision medicine management, significant medical breakthroughs have been achieved in reducing the incidence of breast and rectal cancer in the United States in 2015. With the increasingly important role of precision medical management in the era of precision, China has also made efforts in investing and developing the field of precision medicine and health. Under this background, the precision health management system was created and operated based on the technical concept of precision medicine, individuals' health status, and genetic characteristics, to carry out the whole process of monitoring, analysis, evaluation, guidance and physical health intervention. It can be said that precision health management is the long-term goal of the development of precision medicine.

1. Application status of precision health management model

1.1 Status of precision health management application

Specifically, precision health management is based on individual genes to take precautionary approaches and interventions in advance for possible genetic defects in individual genes. For example, "treatment before disease" is one of the important aspects of precision health management. Compared with the traditional health management model, the application of precision health management has the following characteristics: first, precision health management has constructed comprehensive and detailed electronic personal health files. At present, the precision health management adopted by the society is mainly through various management methods to identify the individuals' physical conditions. It builds electronic health files with

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different management measures according to the records. Electronic personal health records are an important basis for accurate health management, which include the personal health status of residents, norms of self-health management, and relevant information on health management in where it is operated. It covers the entire life of residents. Second, precision health management provides the foundation for smart healthcare. The construction of smart cities is an important part of modern city construction. The current precise personal health management activities are the building blocks for smart medical care. At the same time, the resources for medical treatment can be effectively used to improve the accuracy and efficiency of diagnosis.

The application of health management is to improve the health level of the whole society with less resources and expenditures on the medical and health level. In this regard, precision health management can achieve the goal with half the effort through its accuracy and comprehensiveness.

1.2 General types of precision health management models

According to the application of precision health management, community residents should be able to undergo health checks to test their health level by collecting health data to construct electronic files for everyone. At present, due to the large gap between the rich and the poor in society, the development of medical technology is uneven, which makes precision health management applications develop different management modes. There are the following specific types:

First, a comprehensive and precision health management model. The comprehensive and precision health management model is mainly based on the national and social public welfare activities to carry out special health management activities. For instance, the "screening of two kind s of cancer" campaign launched at the grassroots level, which accurately monitors the health status of married women at the grassroots level. Another example is the regular medical team entering the community to participate in various health activities.

Second, the guarantee type of precision health management model. This model is mainly based on the management model developed by China's current social basic medical security system. Through the

establishment of various major disease insurance and basic vaccine protection in the medical security system, some basic physical health status of individuals can be accurately recorded. For example, for the management of smallpox vaccination for infants and young children, through the intervention of these measures in advance, the health protection of individuals can be achieved.

Third, the ability-training type of precision health management model. The ability-training type is based on the improvement of the socio-economic level and the continuous optimization of social infrastructure to achieve a higher level of health management activities. That is, through the network management of the whole society, the personal health-related data can be grasped in a synchronic and diachronic manner, thereby forming individual health records.

In short, the precision health management model is not only useful in the precise management of personal health but also in the diversified and precision health management for individuals at different economic levels and social status.

2. Optimized exploration of precision health management model

As can be seen from the above, the current precision health management model has gradually formed a system that meets the basic needs of individual health management at all levels of society. With the rapid development of big data technology, the precision health management model should continuously be optimized and upgraded in order to better adapt to social needs.

2.1 Application demands of precision health management in the new period

In the early stage of application development, the precision health management model mainly meets the basic needs of individuals in terms of health, that is, to prevent health problems by preventive interventions of diseases. However, as people's spiritual needs increase, their demands for health management have shown an in-depth increase. The focus of health management should be put on preventive medicine. For example, people are beginning to pursue anti-aging medical



services that involve new medical technology such as plastic cosmetic medical technology and stem cell technology. This greatly increases the difficulty of precision health management applications. It also requires that the existing precision health management model should be optimized and upgraded in time.

2.2 Optimization measures for the precision health management model in the new period

First, based on information technology, a precision health management model should be built. Medical service technology is the core of the application of precision health management. With the development of the humanistic concept in the new stage, it is also required to be able to introduce personalized health services in precision health management. In this regard, it is necessary to build an information-based precision health management platform based on information technology methods, and it is also crucial to analyze personal data on the platform to provide individuals with healthy lifestyle advice, high-quality health service management, and better access health recommendations, for example, a health knowledge base set up on the platform. Based on personal health situations, the knowledge base will provide individuals with more relevant health information.

3. Achieve a systematic integration of multidimensional medical services

In the current application of precision health management model, it is constantly emphasized that innovating medical technology and applying the latest medical research results to health management are neccessary. In fact, China has a rich system of traditional medical theories, such as Hua Tuo's Mafeisan thousands of years ago. The excellent technology and experience of ancient medicine are still the inspiring source of the modern precision health management model. To this end, it is necessary to realize a systematic combination of tradition and modern medical services. In addition, in the precision health management, it can be found that the state and society play an important role, and precision health management is ultimately for individuals, which requires that the future precision health management

model should achieve multiple cooperation between individuals and groups. For example, the society comes up with advanced medical technology for precision health management, and the government supports funds and resources for its development. The general public should also develop healthy lifestyles and habits based on health management activities, as well as active cooperation in health checks.

4. Conclusion

As we all know, the management level at the medical level directly affects the stability of society and even the construction level of a modern country. With the continuous advancement and development of modern medical technology, the health management model supported by core medical technology is in line with the needs of social groups. Therefore, it is necessary to continuously improve with the times to achieve optimization and innovation based on practical application. With the in-depth development of the application level of precision health management, the precision health management model requires not only the optimization and upgrading at the technical level, but also the popularity of the health awareness at the cognitive level. Only in this way can we ensure that the precision health management model can realize the advantages of precision and efficiency.

References

- Zeng Q. A preliminary study on the Internet + health management model (in Chinese). China Hospital CEO 2016; Z1: 119-120.
- 2. Shao Q. Precision health management embraces the Internet (in Chinese). China Science and Technology Industry 2016; (1): 69-70.
- 3. Fang Z, Lu R, Zhao J, *et al.* Research on the management model of precision medicine for diabetes in traditional Chinese medicine based on big data (in Chinese). Clinical Journal of Traditional Chinese Medicine 2017; 2908: 1150-1153. doi: 10.16448/j.cjtcm.2017.0384.
- 4. Accurate detection opens a new way of health management (in Chinese). China Medical Device Information 2019; 25(6): 190.
- Liao S, Xue Y, Tan B. Management strategy of hospital smart diagnosis and treatment in the era of "Internet +" artificial intelligence (in Chinese). Chinese Hospital Management 2019; 39(10): 5-8.
- 6. Guo Y, Long F. Exploration of the precision



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- teaching model of college students' quality education from the perspective of mobile Internet (in Chinese). Microcomputer Applications 2019; 35(10): 48-50.
- 7. Feng L. Precise policy promotes the development of logistics management in the health industry (in
- Chinese). Urban Development (Property Management) 2019; (9): 48-49.
- 8. Zhou Z. Research and design of health management system under the trend of precision medicine (in Chinese). Gansu Science and Technology 2019; 35(1): 18-19.