Application of Computer Technology in Health Management Course

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Abstract. Health management is a concept that belongs to the category of evolutionary medicine put forward in the last century. It refers to a process of comprehensive management of health risk factors of individuals or people. Its purpose is to mobilize the enthusiasm of individuals and collectives and to effectively use limited resources to achieve maximum health effects. Through health management, we can achieve the purpose of disease prevention, thereby reducing our medical expenditure, but also improve physical fitness. However, health management needs more complex data to carry out statistics and management. It is difficult for human resources to meet the needs of statistics and management quickly and well, so various computer health management software emerges as the times require. Computer technology has been applied to the field of health management to improve the efficiency of health management.

Keywords: Computer Technology, Health Management, Applied Research

1. Introduction

At present, the social development is very fast. With the arrival of the information age, all aspects of our life cannot be separated from computer and Internet technology. Even in the newly emerging field of health management, it has played an important role. Health management does not only play a role in disease prevention, it plays a more or less role in all pathological stages, but a large part of the technical support it needs must rely on computer technology. Especially data management and automated analysis, the application is very wide.

Figure 1. Health management stratification chart
Purple: severe; green: chronic; red: general and sub-healthy; blue: healthy

2. Application of Computer Software in Health Management

2.1. The Significance of Health Management Software in Management and Information Science
From the point of view of management science, health management belongs to the category of process management, and software technology plays an important role in improving it. For example, physical examination information management system is of great significance to realize paperless physical examination business. It is of great significance to improve the storage and processing ability of physical examination data. From the point of view of information science, health management and information are the process of collecting, storing and statistical analysis of massive health-related data. The development of large databases and artificial intelligence makes it possible to manage health efficiently and intelligently. For example, health risk online assessment system can query, compare and analyze health information.

2.2. Classification of health management software by client
According to the classification of service objects, health management software is divided into individual and group health management system. A collection of unlimited online i-Mode system developed by Japanese scholar Sujiasong is one of the representatives of individual health management software. Asthma patients with medication, sputum status, vital capacity, weather conditions and other conditions into the system, the system can automatically determine whether the patient's current situation needs to be diagnosed by a physician. Group health management system has many cases, among which Dell (Dell) uses health management system. Since 2004, the company has implemented a large online health management system that enables the electronic recording of the health status of 26000 employees and tracks their prescription and ability to seek medical treatment, thereby reducing Dell's medical costs and increasing productivity.

3. Analysis of Research and Development Status of Domestic Health Management System
Although the practice of health management in the United States and Japan has been studied for more than 20 years, because of the protection of intellectual property rights by foreign software companies, the risk factors and living habits of foreign residents and Chinese residents are not the same. China's health management research institutions, software domestic companies are trying to explore the development of health management system suitable for the biological and sociological characteristics of Chinese people. For example, Zheng frequently and Fu Hua use this year's disease spectrum and cause of death data to develop an online health risk assessment software suitable for Chinese residents, and continue to upgrade. According to its function, the current domestic health management software can be roughly divided into two categories. One is the physical examination management system with health examination as the main function, the other is the health assessment system, that is, the health risk assessment system. The latter automates the detailed process of generating health plans more than the former. Our country has independent intellectual property rights products are mainly the former.

3.1. Medical Examination Management Information System
The medical examination management information system is based on Powerbuilder, Visual basic software and large database such as Sqlserver, Oracle. The system can not only store a large number of physical examination data, but also provide certain statistical analysis function and function health guidance. Therefore, it is different from the traditional medical examination management software. This kind of domestic product mainly has Shenzhen Tianfangda company's product "Xinglin Miao
hand "," Xinglin Shen finger" and Beijing Zhongke Hengye company's medical examination management system.

3.2. Health Risk Assessment System
The essence of health risk assessment system is expert system, which belongs to the category of artificial intelligence. The structure includes knowledge base and reasoning machine, which is based on the data of large-scale health epidemic survey and is constructed with professional mathematical model. The individual risk factor data is processed by the inference machine and then the corresponding health guidance is extracted from the knowledge base to form the health guidance plan. Domestic products include the KYN health assessment system developed by Beijing Boyi Meihua Company, the confidant health risk factors and guidance system developed by Beijing Yaohua Kang Industry Company, and the health and disease assessment system developed by Ai Health Management Company. Hong Zhang International Health Management Group developed Hong Zhang family doctor health assessment system.

4. Analysis on the Application of Domestic Health Management System
At present, the management mode of most health management companies in China can be summarized as the service after experience examination, and the medical examination business is the main profit point, which objectively promotes the maturity, perfection and popularization of the medical examination management information system. At present, most health management companies only use health assessment as an optional part of post-examination services, not as a major profitable project, and health assessment is the most technical. So there are few health management companies using health assessment system in China, and fewer companies can develop independent intellectual property health assessment system. The popularization and development of health management software system in China is also restricted by the marketing mode of health management software provider. The marketing mode and marketing strategy of the two kinds of systems are compared in Table 1.

Table 1. Comparison of current marketing models for providers of the Physical Examination Management Information System and the Health Risk Assessment System

| Type                  | Marketing model | Applicable object          | Charging method | Advantage(s)                      | Disadvantage(s)                  | Response                        |
|-----------------------|-----------------|----------------------------|-----------------|-----------------------------------|----------------------------------|---------------------------------|
| Management Information System | sales software  | physical examination organization | one-time purchase | system is popularized quickly | weak protection of intellectual property rights | continuous upgrading of excellent services and software |
| Hazard Management System | sales services  | health management related organization | charge by person | intellectual property protection is strong | adverse to data confidentiality | sale of software and optimization of customer evaluation |

5. Outlook on the Development Trend of Health Management Software System in China

5.1. Trends in the integration of physical examination and assessment system
In the near future, medical examination fever is followed by evaluation fever, and the market competition for medical examination and evaluation software will become more intense. At present, the company that develops the physical examination management and system is integrating the
evaluation module for its products, and the company that develops the evaluation software is also integrating the physical examination module for its products. The integration of physical examination software and evaluation software is an inevitable trend, because only two systems can achieve the most perfect health management Error! Reference source not found.

5.2. The Integration Trend of Hospital Management Information System and Health Management System
At present, most of the health management in our country is carried out by third parties outside the hospital, but only by relying on certain strength of medical institutions to implement health management, can we effectively meet the needs of customers in medical treatment. The PLA General Hospital Health Medical Center, Guokang Network Health Management Company is such a model. How to connect with hospital management information system (HIS) will be a new research and development topic for health management department in China. At present, the health management industry has just started in China. With the gradual popularization of the concept of health management, the number of people participating in health management services is increasing. Health management computer system will inevitably become an indispensable auxiliary tool for health managers and general practitioners to implement health management efficiently Error! Reference source not found..

6. Conclusion
People's demand for health is increasing, the public's concept of health management has gradually changed from "disease treatment" to "disease prevention ", and health management has gradually been paid attention to. With the rapid development of medical science and technology, many data intelligence technologies based on computer technology, such as deep learning, machine learning, data mining and so on, integrate, refine and play a great role in the multi-source heterogeneous data such as disease condition and disease history data, physiological signs data, etc. Before and even after, computer technology will continue to shine in the field of health management.

Acknowledgments
This Paper is supported by Shaanxi Provincial Education Science "13th Five Year Plan" 2020 Annual Project, with the title of "Research on the Five Education Genes of Traditional Chinese Medicine Culture into Curriculum Ideology and Politics (Project No: SGH20Y1181) ".

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