

The Application of Nursing Information Technology in Mental Health of the Elderly

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Abstract: Nursing psychology is a marginal subject between nursing and psychology. It masters nursing psychology, strengthens the psychological care of inpatients, can improve the quality of care, and can achieve better auxiliary effects for the treatment of related diseases. This paper aims to improve the quality and level of mental health care by using information technology to improve psychological health care in the mental health of the elderly.

1. Introduction

The rapid development of modern science and technology has played an indispensable role in promoting the progress of China's medical and health industry. The close integration of information technology and medical activities is one of the important characteristics of medical development in the 21st century. Information management is the development direction of hospital management. Introducing the information system into the hospital management work can not only improve the work efficiency of medical staff, but also reduce the difficulty of patients entering the hospital and waiting for a long time. The establishment and improvement of the nursing information system has changed the traditional nursing management mode. It is of great significance for the hospital to implement the "patient-centered" nursing concept, improve the quality of nursing, and promote the scientific and standardized nursing management [1]. The Nursing Information System is a computer system that can quickly collect, store, process, retrieve, and display the required dynamic data and dialogue. It is also an important part of the Hospital Information System (HIS), which can be applied to all aspects of hospital management. Including outpatient management system, hospital management system, medical treatment system, daily care processing system, hospitalized patient card, medication management system, bedside monitoring system, electronic catering system, visit management system, logistics information management system [1], greatly simplified The workflow has improved the efficiency of hospital care management.

Aging is an important social problem facing China at this stage, and the problem of aging has led to an increase in the number of chronically ill patients and an increase in the burden of family pension. Strengthening the computerization, networking and dataization of information will become a basic material condition for elderly psychological care.

2. The status quo of informatization development of mental health care at home and abroad

2.1 Development status of foreign nursing informationization.

As early as the 1960s, the United States began research on hospital management information systems. By the mid-1980s, one-tenth of hospitals in the United States had a comprehensive computer hospital information system. Japanese medical institutions also began research and application of informatization in the early 1970s, and they have developed rapidly in the following decade, mainly in the wide application of electronic medical records. It was not until the mid-to-late 1980s that there were reports of the use of computer systems in nursing work. Subsequently, the nursing information system developed rapidly and presented the characteristics of integration, networking and integration [2].

The existing medical institutions in Europe and the United States have formed a complete information management system for nursing management, which plays a huge role in the collection of nursing information, quality evaluation, and network nursing. Studies have shown that a complete information system allows nurses to maximize the amount of patient information, which is decisive for the improvement of care quality. In the evaluation of nursing quality, the United States uses the quality indicators in the minimum data set for quality evaluation. At the same time, the United States has developed a standardized data collection and monitoring system that combines with minimal data sets to effectively improve the quality of care [2]. At present, the network system is relatively mature in the application of European and American nursing. Nurses can quickly access the resources in the library through the network to query drug information and their interactions. Quickly finding the information you need is critical to reducing medication errors. Mental health care diagnosis is critical.

In general, nurses in European and American hospitals have a good computer application foundation, and the hospital's nursing information system is relatively sound, and at the same time has a sound basic network construction. These factors have contributed to the great success of information technology in the application of foreign nursing work.

2.2 Current status of domestic nursing information.

The formation of information technology in domestic nursing began in the 1990s. In 1991, the establishment of the Nursing Information Group marked the beginning of the application of computer in China's nursing began to show a certain scale & L'. After nearly ten years of development, China's first nursing informatics, "Introduction to Nursing Information Science", systematically clarified the theory and methods of nursing informatics, and laid a theoretical foundation for its further development [3]. In the 21st century, the research and implementation of nursing information systems has entered the fast lane of development. During this period, the nursing information system became the main project of the medical information system. As of 2007, more than half of the hospitals in China have a comprehensive nursing information system. At the same time, nursing professional and technical personnel are pay more attention to nursing information technology, and carried out a series of research results, which greatly promoted the development of nursing informatics [3]. Compared with Europe and the United States, the rise of China's nursing informationization has only a gap of less than ten years, but there is a big gap in the theoretical system and mental health practice.

In the theoretical system, because nursing is a secondary discipline for a long time, it seriously restricts the construction of nursing information discipline. In 2011, the Academic Degrees Committee of the State Council classified nursing as a first-level discipline, which provided important theoretical support for the healthy development of nursing informatics. For mental health practice, mental health nurses are mainly lacking in systemicity. At the same time, changing the passive and one-sidedness of informatization in nursing applications is the focus of future development of nursing informationization. After 2012, with the gradual rise of new media, the informationization of nursing in China has gained rapid development opportunities.

3. The necessity of nursing informationization

3.1 People's need for health.

Under the impetus of economic development and medical advancement, people's life expectancy is getting longer and longer, their health demand is correspondingly increasing, and more people are paying attention to their own health and disease prevention. The establishment of nursing information files by nursing information technology is conducive to providing care that is more humane for residents. It is even more important to note that the problem of aging population is accompanied by an increase in the incidence of chronic non-communicable diseases [4]. The health problems of an elderly patient are often no single, so the patient's medical information for hospital health services. It is especially important that a comprehensive and comprehensive personal medical information can provide better medical services to patients.

3.2 The need for the development of aged care.

Under the impetus of urbanization, the family structure has undergone corresponding changes, and the family size has gradually narrowed. The "4+2+1" family structure model is still the core model of Chinese families for a period of time [4] At the same time, people's health problems are increasingly individualized, diversified and complicated. In order to solve the problem of medical treatment for the elderly, the State Council issued the "Guiding Opinions on Actively Promoting the "Internet +" Action" [5], promoting the combination of aged care and information technology, bringing opportunities to solve problems and guiding elderly nursing information technology.

4. Current psychological characteristics of the elderly

4.1 Elderly patients are prone to loneliness and loneliness.

During hospitalization, due to the monotony of life, lack of emotional communication and communication with family members and the outside world, patients are often prone to a sense of being abandoned, resulting in changes in personality and behavior. Elderly patients with psychological loneliness are mostly stubborn, self-respecting, and silent.

4.2 Elderly patients are prone to fear and anxiety.

Due to the decline of various functions of the elderly, the acute phase of certain diseases can cause tremendous psychological stress to the patient. The patient may suffer from sudden death due to persistent severe pain, plus diet, rest, sleep, etc. after hospitalization [5]. It is difficult to adapt to all aspects, the law of daily life is disrupted, and suffering from illness, it is often manifested as irritability, pain, poor sleep, and no diet.

4.3 Sensitivity and suspicion are another feature of elderly patients.

They often speculate that their illness is very serious, and they suspect that doctors, nurses and even family members are deliberately concealing his condition [3]. A small movement around him, an unintentional discourse, may be caused his suspicion and aggravated his psychological burden. At this time, they are particularly sensitive to their own diseases. They ask the medical staff to ask questions, learn from the patients, or read many books. They are eager to understand the ins and outs of the disease and try to grasp the disease. When a patient may have a similar symptom with a patient with incurable disease and is suspicious, it is often expressed as low mood, sadness, sorrow, silence, and often uneasiness.

4.4 Loss of confidence and pessimism is also characteristic of elderly patients.

The heart, brain and other organs of the elderly tend to decline and decline in function. They often feel powerless, old, and useless [5]. Because of repeated illness and ineffective treatment, pessimism and self-blame are generated. Such patients are often manifested as depression, mental depression, helplessness, often secretly crying, not willing to interact or talk with others, indifferent to treatment and disease outcomes, reluctance to receive treatment and care, negative waiting for " The final destination."

4.5 Dependence psychology.

Old people have a sense of dependence after illness, which is manifested by drug dependence, family members, medical staff and dependence on the surrounding environment. It is believed that only expensive drugs and new drugs can cure diseases. Family members and medical staff often give care and treatment to be safe. Care for healing time, seek medical attention, hope to obtain accurate diagnosis and satisfactory treatment immediately, and expect high cure for disease.

5. The application of information technology in elderly mental health care

5.1 Integrate nursing information resources.

According to the requirements of modern hospital nursing management, integrate basic information, business information, teaching and continuing education information, scientific research information, nursing quality management information and material management information in the nursing information system, and use the advanced information network function of the hospital to promote nursing management [6]. Model and workflow reforms, strengthening the use of nursing information resources and linkages between departments, enabling caregivers to receive timely information on care and achieving truly patient-centered total quality management.

5.2 Optimize the nursing workflow.

At present, the main contents of the nursing information system platform include nursing forum, nursing news online, head nurse-care department director-service dean's mailbox, holiday online approval, material online application, various rules and regulations, and nursing quality standards and evaluation standards [6]. Nursing work quality system, nursing quality inspection information feedback, nursing adverse event information reporting and feedback, nursing academic dynamics, nurse work log, nursing culture, etc. Through the application of the nursing information system, the work efficiency of the nursing staff can be effectively improved, and the various workflows of the nursing staff can be optimized.

5.3 Improve the writing of nursing records.

With the application of the nursing information system, the nursing staff can write the medical records more quickly and indirectly reduce their workload [7]. At the same time, the use of the medical record template also makes the medical record writing more standardized, and the use of the tabular nursing medical record can automatically generate various types of statistical data, which is standardized and timesaving.

5.4 Complete care-docking work.

Through the Care Information System, caregivers are able to understand every dynamic of the patient from admission to discharge. This provides more convenient conditions for the handover of the nursing staff's work, promotes the complete docking of the nursing work, and makes the connection between the doctor and the nursing staff more rigorous [7]. The application of the system to print various infusions, treatments, and treatment orders through the computer can not only change the cumbersome process of the previous nursing staff to copy the doctor's instructions, but also reduce the misplacement and leakage caused by the doctor's handwriting and irregularity during the transfer. Copying the phenomenon is more conducive to archiving.

5.5 Share patient dynamics in a timely manner.

The nursing information system can display the patient dynamics in time, so that doctors and nursing staff can timely and accurately understand the patient's condition changes, so that the nursing staff can respond to the abnormal reaction of the patient more quickly, so that the patient gets the first time. Nursing, to avoid further deterioration of the patient's condition [6]. This is not only conducive to the treatment of patients, but also promotes benign communication between health care and care.

5.6 Information technology diet care.

With the advent of the ageing population, the contradiction between the need for care and the lack of nursing human resources for the disabled and disabled elderly is increasing. Among them, daily diet care is one of the most important life activities for caregivers. Nursing staff need to spend a lot of time communicating with the care recipients to understand the food they like and the appropriate feeding interval. These care jobs will consume many labor and material resources. Since the 1980s, developed countries such as the United Kingdom and the United States have developed a variety of

food care information robots, which has greatly facilitated the lives of disabled and disabled elderly people, and effectively reduced the workload of nursing staff. The Kanagawa Institute of Technology in Japan has developed a feeding-assisted robot for patients with quadriplegia. It consists of a human-computer interaction system and an auxiliary feeding robot system. It successfully implements the human-computer interaction function and provides convenient conditions for the four-limb users [4], also provides an effective solution for daily diet care activities for disabled and disabled seniors.

5.7 Reporting and feedback adverse events of care.

Nursing safety is the basis of nursing work [2], the nursing information system strengthens the feedforward control, link control and feedback control of nursing safety, and the effect is obvious [3], such as various departments and nursing departments use the nursing information system to implement safety for high-risk patients. Feedforward control can effectively reduce the incidence of adverse events [4-5]. At the same time, through the nursing information management system, the speed of the nursing department's access to information on adverse events in each department can be effectively improved, and the system can timely feedback the treatment opinions and results to various departments and nursing departments, which is easy to track, thereby effectively improving hospital care. Quality and care safety.

5.8 Improve care satisfaction.

With the popularity of handheld devices such as PDAs and smart phones, caregivers can further improve the efficiency of nursing work through the mobile care information system (MCIS, the writing of patient vital signs data, medical report query, etc.) Timeliness, so that the nursing staff can have more time to carry out nursing work and communicate with patients, which effectively improves the satisfaction of patients and physicians in nursing [6-7].

6. Summary

Elderly psychological care is an important part of future medical development. As an indispensable component, its development needs the support of nursing information technology. At present, we should pay attention to the application of nursing information technology for elderly mental health care. On the other hand, we should pay attention to the development of nursing information education and reserve talents for all aspects of future nursing informatics.

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