

Researchon Application of Network System to Nursing Management

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Abstract— With continuous advancement of society and rapidly development of science and technology, the Internet has become popular in all walks of life in society, especially in the medical system. Under the new situation, a traditional medical system has been unable to adapt to the current working methods and modern medical management system. In order to improve efficiency and quality of nursing management,in-hospital information network management can be implementedthrough establishment of nursing management network information system. As a result,the application of nursing management information system improves nursing management ability and work efficiency, saves cost of nursing management, and improves patients' satisfaction.

Keywords- Nursing Management; Network System; Medical Treatment

I. INTRODUCTION

Traditional medical care methods can no longer meet the rapidly growing social needs. Therefore, the introduction of the Internet in medical care has greatly improved the quality and effectiveness of medical service[1], nursing research and other related work as well as the efficiency of medical care work. Studying the application of computer networks to medical systems is the need of the development of the times and is an initiative to improve the quality of medical care services[2].

II. NETWORK SYSTEM

The network operating system runs on a computer called a server and is shared by networked computer users, who are called customers. The NOS differs from the single-user operating system or multi-user operating system running on the workstation due to the type of service offered. In general, NOS is aimed to optimize network-related features, such as sharing data files[3], software applications, and sharing hard drives, printers, modems, scanners, and fax machines. The general computer operating system, such as DOS and OS/2, is designed to

optimize the interaction among the user, system and various applications running on the operating system. In order to prevent access to files by more than one user at a time, the general network operating system has a file locking function. If the system does not have this function, the user will not work properly. The file lock feature keeps track of every file in use and ensures that only one user can edit it at a time. Files can also be locked by the user's password to maintain the specificity of the dedicated file. NOS is also responsible for managing the connection between LAN users and LAN printers[4]. NOS always keeps track of each user's print request as well as every available printer, and manages how to satisfy these requests[5], to make each end user feel that the printer is operating as if it were directly connected to its computer. Due to emergence and development of network computing, one of the main features of modern operating systems is that they have Internet access[6]. Therefore, except in the early 1990s, Novell's Netware and other systems were called network operating systems, an operating system no longer refers to a network operating system.

III. SPECIFIC APPLICATION OF COMPUTER NETWORK SYSTEM TO MEDICAL CARE SYSTEM

A. Application of computer network system to clinical nursing work

Clinical nursing is an important part of medical care and a key part of medical care. The use of computer network system technology in medical care can not only improve the efficiency of medical staff, but also reduce the work intensity of medical staff. The following is a detailed analysis of the application of computer network systems to clinical nursing work.

(1) Outpatient

At present, the difficulty in hospital registration and queuing has become the focus of the society. The use of computer network system technology in the outpatient department has effectively solved this problem. Nowadays, the use of network registration, advance appointment registration, etc. greatly enhances the efficiency of the outpatient department. Visiting one by one according to the patient registration time saves both the time of the medical staff and the patient's visiting time.

(2) Procedure

The application nursing procedure is mainly aimed at the basic situation of the patients and combined with relevant treatment measures to develop a scientific and reasonable nursing plan for the patient. Through the computer network system, standard nursing mode is formed, actual work can be carried out according to the relevant plans formulated in the system, and the planning documents can be edited. This mode enables medical personnel to quickly input information and modify data, which has the advantages of easy operation and quick operation.

(1) Medical order

The traditional method of manual treatment of medical orders requires two times of transcriptions. The content is first written in various execution forms and then transferred to the medical records forms. This kind of recording method not only increases the workload of medical staff, but also wastes time and reduces work efficiency. In medical care, medical orders are important information for patients during hospitalization, so it is necessary to manage

and record them in detail so that the basic situation of patients can be accurately understood. Nowadays, the generation of medical orders through computer network systems has greatly improved the efficiency of medical staff. Doctors can use computers to record and write basic patient information and related medical orders, avoiding the situation where patients are not clear about the contents of medical records due to problems such as shaming. At the same time, the medical staff can conduct inquiries, executions, supervision and other related operations at any time through the computerized medical system, which greatly improves the work efficiency of the medical staff, and brings convenience to the patient's next visit.

(2) **Hospitalization system**

For the inpatient department of a large hospital, it is necessary to apply a inpatient system. Due to the large number of patients, it is usually impossible to achieve timely communication between the inpatient department and the outpatient department, resulting in a tight bed situation. The hospitalization system can solve this problem very well. Every patient registers relevant information in the computer when they go through the admission procedure, so that the medical staff can have a basic understanding of the information. At the same time, nurses can know bed situation in the first time. It can also enable the medical staff in the outpatient department to keep abreast of the patient's basic physical characteristics and facilitate communication with doctors in various departments during the hospital stay. The hospitalization system is a computer network system that is relatively mature and widely used. It is usually composed of several subsystems such as disease management, central drug management, and hospitalization financial management. Through this system, the departments of ward, medicine, and finance of the hospital can be managed, which is of great significance to medical personnel. It greatly promotes the quality of their work and improves efficiency.

B. Application of Computer Network System to Medical Nursing Research

The hospital is an important part of the social basic cause. Carrying out medical nursing research work can help human beings fight disease. Research work is related to the basic level of nursing throughout the hospital. Computer network system has the basic characteristics of information sharing at a high level, and has the powerful advantage of massive data. Its utilization value in medical nursing research work is immeasurable. The application of computer network system to nursing research is mainly reflected in the following aspects. First, in the search and reference of nursing literature, a complete database with document management, query and collection functions is established through computer network system, which lays a theoretical foundation for nursing research work. On the database page, researchers can retrieve relevant subject documents and print them to provide paper-based references for their research. It has the basic features of simple, speedy and clear. Second, establish a personnel program for medical care staff, record the basic information of the entire hospital staff through a computer network system, establish medical care scientific research materials and related scientific research files, and include new business or new technologies for hospital care. At the same time, because hospitals have special service functions, continuous study should be carried out in depth and relevant research reports be produced. The computer network system can be used to collect scientific research results such as papers and periodicals published by nursing staff, so that future medical personnel can search, query, and borrow scientific achievements. The use of computer network systems to collect and record data not only helps medical personnel, but also has many advantages such as high efficient, convenient, and confidential.

IV. APPLICATION ADVANTAGES OF COMPUTER NETWORK TO MEDICAL CARE SYSTEM

After the nurse workstation had network access, it improved the hospital's medical order management, drug management, economic management and nursing information management, and provided reliable management information for the hospital leadership and nursing department, which significantly improved the hospital nursing management level.

A. The normative awareness of nursing staff is improved

The debugging and modification initialization work is complicated and fine. For this reason, we have repeatedly inquired about the medical care writing standards formulated by the Ministry of Health. Combined with the specific conditions of our hospital, the medical nursing terminology is standardized, and the order of medical advice is clearly defined. Drug names, dosage, and dosage forms are based on the pharmacopoeia, and colloquialism medical advice is abolished. The implementation of these measures has improved the quality of medical advice and strengthened the normative awareness of nursing staff.

B. It makes nursing documents tidy and standard

Computer can automatically organize medical advice, and print doctors' orders, infusion lists, oral medicine lists, prescription lists, bottle labels, patients' 1 day fee lists and reminder lists. It changes traditional practice of the nurses, copying doctors' order to the treatment list and the infusion card, which can avoid errors.

C. The professional quality of nurses is improved

Through clinical application, the nurses in the ward of the hospital can master computer operation, and complete the work of medical order entering, charging and pricing. The implementation of the computer medical charging system has cultivated the nursing staffs' work style of scientific, standardized and regularized, enhanced the consciousness of learning and improved their professional quality.

D. It provides convenience for quality inspection

After the computer is connected to the network, the nursing department can use its own user password to enter nurse workstations of each ward at any time. A large amount of nursing information is available at any time. The number of hospitalized patients, the number of critically ill patients, the number of primary care, the number of operations, childbirth, and deaths, the total amount of nursing work statistics, drug information inquiry, accuracy and timeliness of nurses entering medical orders, and patient expenses are clear. According to the information obtained, the nursing department can conduct targeted inspection, guide and coordinate work to improve work efficiency and achieve dynamic management of nursing.

E. It helps control cost and increase economic benefits

Most of the doctors' order entering at nurses' workstations has a corresponding relationship with the pricing. After doctors' order was entered, corresponding expenses were automatically

generated, which changed the procedures for the nurses in previous time, such as, report medicines, pharmacy prices, and billing at charge office. Nowadays, charges are fast with high accuracy. At the same time, it also regulates the medical behavior of medical and financial personnel, and eliminates the phenomenon of illegal prescription for personal gain. Computer can print a daily fee list and post it to the patient once a day, increasing transparency of the fee and patients' sense of trust in the hospital. If you need to pay the fee, you can check the patient's expenses and balances at any time, so that you are clear about your consumption and can set your mind at rest in hospital.

v. CONCLUSION

In summary, the application of computer networks to medical care systems needs further research. As far as the current situation is concerned, the application of the inpatient system is relatively mature, but the clinical nursing system still needs further research and development, to make medical staff can communicate and understand patients' situation at any time, so as to provide better services for patients and improve work efficiency and quality.

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