

Nursing Management During Public Health Emergencies

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Abstract: Public health emergencies are difficult to predict, have complex causes, and are extremely destructive. In order to reduce the impact of public health emergencies, this paper introduces a refined nursing management method to deal with public health emergencies. By establishing a sound management system, implementing scientific management processes, ensuring the overall quality of nursing, and improving the logistics, etc., the cooperation between the medical staff can be improved, and the safety of personnel can be ensured.

Keywords: Public health emergencies; Nursing management; Refined management

Online publication: May 30, 2023

1. Introduction

Emergencies occur every year all around the world, such as natural disasters, accidents, and pandemics. When these emergencies occur, people will feel nervous and fearful, and these emergencies will also have a significant impact on people's lives and mental states. Among them, public health emergencies have the greatest impact on public health or group health. Public health emergencies are defined as sudden outbreaks of major infectious diseases, group diseases of unknown cause, major food and occupational poisoning, and other events that have a major impact on public health ^[1]. Issues regarding public health emergencies should be highlighted due to their unpredictability, complexity of causes, and destructiveness. In recent years, there have been large-scale public safety emergencies in the country, which require advanced medical technology and good emergency management by medical staff. By establishing a sound management system and implementing scientific management processes, ensuring the overall quality of nursing care, and improving the level of logistics services, etc., the coordination between the medical staff can be improved, and the safety of personnel can be ensured.

2. Improve the management system and implement scientific management

The medical team is one of the most important forces in a public health emergency, ^[2]. To establish a sound management system to ensure the safety of medical staff and logistics personnel, professional protective equipment should be provided. Besides, special operating equipment and standard operating rooms should be provided. Systematic training should also be provided to the staff to ensure the implementation of various measures to avoid medical accidents, so that the safety of medical staff and patients can be ensured.

2.1. Perfect protection details, and strict training and assessment

Based on previous experiences in handling health emergencies, in accordance with the relevant instructions

issued by the National Health and Family Planning Commission ^[3], and the input of experts, a set of procedures on wearable protective clothing can be designed. Each link and requirement should be specified in detail, including the proper method of wearing a protective mask and measures to prevent fogging when using goggles. Tutorials and video recordings of the standard operating procedure can also be used to train medical staff. In addition, a set of emergency treatment procedures should be formulated for medical staff who may experience dizziness and vomiting during the operation, so that occupational hazards in virus-contaminated areas can be prevented and ensure the safety of medical staff. To better respond to emergency public health incidents of infectious diseases, pre-job training should be carried out systematically, so that every medical staff can fully grasp the protection measures and key points and the medical staff and patients can be protected. Training can be carried out in various ways, such as distributing training materials and self-study videos, simulation drills, and assessments, so that every medical staff can fully understand their own responsibilities and priorities. In addition, safety training should also be carried out frequently to enhance the medical staff's safety awareness.

2.2. Setting up supervisory positions

In order to control disease infection among hospital personnel more effectively, a special supervisor post can be set up in the ward. The supervisor is to check the wearing of protective equipment by medical staff when entering and leaving the polluted area, remind and deal with uncivilized behavior, and improve the effectiveness of protective equipment. Besides, the supervisors should conduct regular inspections on the protective equipment of the medical staff. Once the protective equipment is found to be detached or damaged, the personnel should be notified immediately, and the equipment should be repaired or replaced. In addition, any medical staff who experience symptoms such as abnormal body temperature, dizziness, and vomiting, etc., they must immediately report to their superiors and receive timely treatment. Their duties should also be assigned to other staff to ensure smooth workflow in the hospital.

2.3. Reasonable deployment of personnel and scientific and dynamic scheduling

Due to high work intensity, large number of patients, and heavy physical load of medical staff in infectious disease wards, it is important to scientifically manage the medical team, formulate a reasonable scheduling system. In order to ensure a smooth workflow, the areas of the hospital can be divided into clean area, potentially polluted area, and polluted area according to the tasks performed in that area. The location of each tasks should be defined to ensure that the work handover process between medical staff is efficient and smooth ^[4]. In addition, a 4-hour shift system can also be implemented, where the nurses are divided into different groups according to their working experience and working hours. Besides, relevant experts will be the team leaders, and the nurses are assigned to specific patients, and an accountability system can be created to improve quality of care. In addition, the nurses on duty should be adjusted according to number of patients admitted to the hospital on that day, and a shift system should be implemented to ensure the quality of care while improving work efficiency.

3. Carrying out holistic care and ensure the quality of care

3.1. Formulating nursing procedure and standardizing nursing management

Highly infectious diseases with rapid onset are often accompanied by a series of complications and organ failure ^[5]. In order to save the patient's life, the patient must be given proper care. Besides, the patient's vital signs and physical condition, including body temperature, respiration, pulse, blood pressure, etc., should be monitored. The nursing plan should be adjusted according to the patient's condition, carry out airway management, basic nursing and other measures should be taken. In addition, it is necessary to focus on the details while observing the patient to prevent adverse reactions and ensure the safety of patients. In

addition, the content and procedure of nursing should be clarified according to the patient's diseases; and the process should be revised and changed according to the characteristics of the disease and the patient's condition ^[6]. During the process of registration of patients' admission and information transfer, a sound verification system should be established to ensure the authenticity and accuracy of the information, and the personal belongings and nursing supplies of the patients should be checked and listed in detail to ensure the authenticity and accuracy of the information, so that the nursing management process can be standardized.

3.2. Carrying out emergency training and improving professional quality

When faced with new types of diseases, new working environment, and new working system and equipment, nursing staff need to quickly grasp the workflow, nursing routines, and measures that should be taken. Therefore, it is very important to strengthen the training of nursing staff in terms of using different technologies and equipment and psychological adaptability. We have carried out comprehensive research on the key points of nursing critically ill patients with major infectious diseases and constructed a complete set of training curriculum system and formulated a well-organized training plan. The training content includes occupational protection, job responsibilities, equipment operating procedure, and priorities, etc., so that each nursing staff can understand their roles and can respond to emergencies accordingly and ensure the patients' safety. In terms of the teaching staff, we must pay attention to the cultivation of professional nursing talents, so that they can become the backbone of the industry. Lessons are conducted with the combination of on-site demonstrations, online training, and group learning. This system makes full use of the short time between nursing staff's shifts to strengthen targeted operations and make up for weaknesses. Through this teaching system, nurses can quickly improve their emergency handling and practical skills, thus effectively ensuring the safety of patients and the quality and level of nursing. The establishment of a sound training organization and management system, evidence-based and practical training content, the application of diverse training methods, and maximizing the role of teachers can make a significant impact on emergency training ^[7].

3.3. Improving the quality of nursing care and ensuring the safety of patients

Quality of care has always been an important aspect in nursing management. The head nurse and nursing supervisors strictly control the quality of basic nursing care of critically ill patients with infectious diseases and make detailed requirements for quality management points in airway assessment. During this process, it is also important to pay attention to the basic physiological state of the patient, such as skin care, oral care, etc., to prevent various complications of critically ill patients, such as pressure injury and respiratory tract infection. Nursing staff should be assigned to inspect and supervise the ward every day, so as to find out details and report abnormal situations in time to ensure that the complications can be found and treated immediately ^[8]. Besides, the infection prevention and control in the intensive care unit should also be improved by improving the environmental sanitation of the intensive care unit, the cleaning and disinfection of surfaces, and other measures. Hand cleaning procedures and the awareness towards infection control should be improved. After the patient is transferred, the ward that the patient was at should be disinfected properly, and eye-catching signs should be pasted in the ward. In addition, the monitoring of vital signs should be strengthened.

3.4. Strengthen teamwork and give full play to multidisciplinary advantages

Through the establishment of a multidisciplinary nurse team and close coordination between medical staff, diversified, individualized, and continuous care of critically ill patients can be achieved, which in turn reduces the probability of complications and improve the quality of life of patients ^[9]. The nursing team

perform their duties and carry out detailed discussions on difficult and critical patients every day. ICU nurses are the core members of the entire nursing team. While providing patients with professional care such as airway management, respiratory support, and blood purification, they must also do a good job in basic nursing, psychological support, and hospice care. In terms of nursing skills, corresponding measures should be formulated according to specific situations. Through the insertion of venous and peripheral arterial catheters under the guidance of ultrasound, the rate of puncture can be improved the pain of patients can be reduced. At the same time, ultrasound can also be used to evaluate the condition of the stomach, so that timely intervention and adjustment of treatment plans can be made in case of complications. Psychological counseling should be given to patients who are emotionally negative or uncooperative, which includes sharing cases of recovery, so as to improve patients' confidence in the treatment, accelerate their recovery, and relieve their pain ^[10].

4. Comprehensive management and improving team confidence

4.1. Strict on-site management to reduce the risk of mass infection

In order to reduce the risk of mass infection, the medical team has paid a lot of attention to the management of centralized living quarters. The nursing department should formulate a clear set of residency management plans that includes details on entering and leaving the quarters and countermeasures that should be taken during an emergency. The Nursing Department should adopt a resident grid management method and divide the members into multiple groups. Each group should have an experienced as the team leader who will be in charge of a comprehensive understanding the members' mindset, monitoring and reporting of body temperature, and regular mental health training to ensure the mental health of medical team members.

4.2. Improving the security and protecting the physical and mental health of personnel

In the wards of critically ill patients, medical staff often have frequent shifts due to insufficient staff. Emergency rescue are carried out often due to sudden deterioration of the patient's condition and physical and psychological pressures like infection risks that may be caused by occupational exposure. If there is no psychological counseling, the work efficiency of the staff may reduce ^[11]. Therefore, it is necessary to ensure that medical team members can maintain an optimistic attitude and a good physical condition, so that they can devote themselves to their work. Hence, it is important to do a good job in all aspects of security work, arrange regular training for relevant mental health counselors, set up a special line for psychological counseling, and help improve the mental health of medical staff. Nurses who have performed well at work should be rewarded, and team-building activities can be organized to increase the teamwork spirit between medical staff. In addition, a good working atmosphere should be created, the sense of pride and responsibility of medical staff and the level of refined management should be improved.

5. Conclusion

Public health emergencies is a huge challenge for both the nursing management system and the problem-solving skills of medical staff. In the process of dealing with major infectious diseases, a scientific and reasonable management system is crucial to ensure the smooth workflow of the medical team. A sound nursing system is an important factor in achieving emergency response and providing high-quality care. In order to improve the emergency rescue capabilities of medical staff, it is necessary to strengthen the handling of public health emergencies and improve the emergency plan, strengthen the training and simulation of infectious disease risk identification and critical treatment. It is also important to pay attention to the attitude of nurses when dealing with emergencies, teamwork spirit, and other aspects of quality training. The rotation training and assessment system for nursing staff should be improved, and the

establishment of a regular training and re-education system for nursing staff should be explored. A complete nursing emergency team should be created to ensure that medical personnel better prevent, control, and treat major infectious diseases.

Disclosure statement

The author declares no conflict of interest.

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