

# Analysis of Risk Factors of Neurosurgical Nursing and Its Countermeasures

Zhang Caixia, Sun Jianfang

Jinshan Hospital Affiliated to Fudan University Jinshan Shanghai 201508China

**Abstract:** This article is to explore risk factors of neurosurgical nursing and its countermeasures. A total of 95 neurosurgical patients admitted in our hospital from January 2016 to February 2017 were enrolled in this study. All clinical data of 94 neurosurgical patients were retrospectively analyzed, including the records of treatment, the records of medication and changes in vital signs. The risk factors in the nursing process were summarize and effective interventions were explored. Through the retrospective analysis of 94 cases of neurosurgical patients, it is concluded that there are some problems in daily nursing work such as lack of humanistic care, privilege curing over nursing, uneven allocation of medical resources and substandard environmental facilities. The risk factors caused mainly from 4 aspects: the department management, nursing staff, the environment and patients. Effective countermeasures need to be taken from the above 4 aspects: to improve the department system, perfect the reward and punishment mechanism; to strengthen nurse-patient communications, implement humanistic care; to improve the hospital environment, perfect the infrastructure; to assess safety risk factors, take predictive nursing measures, improve the quality of neurosurgery care from the whole.

**Keywords:** countermeasures of risk factors of neurosurgical nursing

## Introduction

Neurosurgical patients usually have the characteristics of acute onset, severe illness, rapid changes and high disability and high mortality rate, which make high difficulty of neurosurgery care, large amount of tasks, and high risk coefficient<sup>[1]</sup>. For example, cerebral hemorrhage risks life by a large amount of bleeding; the brain, spine trauma, caused by car accident or tumor oppression of the brain need urgent surgery. Now the contradiction between doctors and patients is highlighted. If the risks cannot be effectively prevented, it certainly will lead to medical disputes, affecting the construction of harmonious relationship between doctors and patients. Therefore, in the neurosurgery care work, nurses should be vigilant on the risk factors, comprehensively analyze them, and take active and reasonable preventive measures to improve the quality of care. This article reviews the nursing work of 95 patients in our hospital neurosurgery, summarizes the risk factors and the measures taken in the nursing process. The results are reported as follows:

# 1 Materials and Methods

## 1.1 General materials

A total of 95 patients with neurosurgery were selected from January 2016 to February 2017, and the clinical data were analyzed retrospectively, including 53 males and 41 females, aged 21 to 72 years, mean age ( $43.6 \pm 8.2$ ) years old. The purpose and significance of this study were clarified for all patients enrolled, and all patients volunteered and signed informed consent. This study was approved by the hospital ethics department.

## 1.2 Methods

All clinical data of 94 neurosurgical patients were retrospectively analyzed, including the records of treatment, the records of medication and changes in vital signs. The risk factors in the nursing process were summarize and effective interventions were explored.

## 2 Results

Through the retrospective analysis of 94 cases of neurosurgical patients, it is concluded that there are some problems in daily nursing work such as lack of humanistic care, privilege curing over nursing, uneven allocation of medical resources and substandard environmental facilities. The risk factors caused mainly from 4 aspects: the department management, nursing staff, the environment and patients. Effective countermeasures need to be taken from the above 4 aspects: to improve the department system, perfect the reward and punishment mechanism; to strengthen nurse-patient communications, implement humanistic care; to improve the hospital environment, perfect the infrastructure; to assess safety risk factors, take predictive nursing measures, improve the quality of neurosurgery care from the whole.

## 3 Discussion

### 3.1 Problems in daily nursing work

#### 3.1.1 Lack of humane concern

Recently, the concept of humane concern has been deepened into clinical nursing work, however, neurosurgical nurses' work are difficult and overload. In practical working, it is difficult for some nursing staff to maintain the positive attitude towards each patient to provide them thoughtful care and good communication, it has also caused the decline of quality of life [2]. In addition, neurosurgical patients were easily to produce anxious, melancholy and some negative emotion under the pain and stress. Some nursing staff exist the problem to influence the nursing work that only to focus on the nursing result, and ignored to pay attention to patients' psychology.

#### 3.1.2

The phenomenon of "prefer curing to nursing" in hospital: As usual, doctors are very important in hospitals, therefore, they will obtain the more medical resources than nurses, at this moment, uneven distribution of wages and welfare will cause psychological gap between nurses. Long-time working and low returns guide the brain drain in nursing area, hindered the nursing-work developing [3].

### **3.1.3**

The problem of hospital environmental facilities: Good environment and sound infrastructure in hospital is one of the most basic rights for patients, and it will also benefit to patients' recovery. If hospital's environment and infrastructure are substandard, it is easy to generate the security risks.

## **3.2 Existed potential risks in nursing work**

### **3.2.1 Elements in department management**

Sound management system and supervision mechanism is an important prerequisite for nursing work which can help it developed favoring. The department of neurosurgery has inadequate and inefficient management mechanism which effected the problems including lack of hierarchy, standardization and rationality. At the same time, if the implementation of management system is not in place, it will generate the management level is low, and the management quality is unstable.

In addition, it also existed some problems such as equipment and medicines are lack of the overall arrangement, department's scheduling mode is irrational, medical resources' distribution is uneven and so on. A study found that nursing equipment failure and drug deficiency were easily occurred in first-aid, which guided patients miss the best time to treat, created medical negligence, triggered medical disputes. Uneven distribution and unreasonable utilization of medical resources will be increasing the workload of nursing staff, affecting nursing quality and nursing safety.

### **3.2.2 Element in environment**

Neurosurgery patients usually existed different level of physical or mental disorders, patients' self-protective is comparatively low, and the impact is big <sup>[4]</sup>. The mainly reasons to create patients tumble including the toilet has no armrest, the goods put wrong place, the ground was stacking up obstacles and so on. Some elements were easily to cause patients falling down from bed including the restraint straps unreasonable used, the bed fences incorrectly protective and the legs of sickbeds are unfixed. Some heat source, like thermoses and hot cups, put them in wrong place maybe could cause accidental scalding.

### **3.2.3 Element in nursing staff**

The nursing work with high intensity and low treatment is the mainly reason to cause brain drain in outstanding nursing staffs, it was also disadvantage for cultivate responsibility in nursing staffs. In addition, lack of the basic knowledge and professional skills; inexperienced in clinical nursing; cannot timely to deal or recognize the underlying risk factors for the disease; will directly to effect the quality of work. For example, lack of the concept of septic operation, weakness the crisis prevention were easy caused the hospital-acquired infection. Nurses' lack of responsibility, poor coordination ability and irregular operation will guide patient's condition cannot get effectively and comprehensively observation and determination, finally, delayed the best time to treat. Cannot implemented the nursing system; cannot timely, correctly and reasonable to record or write patients' conditions or to use medicine's nursing intervention, were all the potential elements in nursing safety <sup>[5]</sup>. In addition, the weak legal consciousness is also one of the important reason to cause the hazard.

### **3.2.4 Element in patients**

Neurosurgery patients' conditions were usually more serious, most of them were associated with sensory disorders,

mental disorders and motor disorders; the observation and recognition of surrounding environment were reduced, especially some patients who exist the consciousness disorders, they were not abundant to express subjective consciousness to nurses, once the sick has changed, it will directly affected the communication between patients and nurses, and influenced the illness development, these situation will caused risks. At the same time, the pain of the disease and the transformation of the illness will increase the stress in patients' physiological and psychological, generated anxiety, depression and other bad emotions, which can increase the difficulty in nursing, induced the risks.

### **3.3 Safe countermeasures**

#### **3.3.1 To improve department system and perfect reward and punishment mechanism**

Hospital needs to improve the rules and regulations of neurosurgery, formulate effective and feasible care plans, effectively supervise the nursing work, standardize the nursing process, and reduce the possibility of risk factors. To timely and effectively handle emergencies, hospital also needs to develop various contingency plans<sup>[6]</sup>, such as the nursing responsibility system, nursing assessment system and reward and punishment mechanism etc. Establishing the normative care procedures can help the nurses to reduce the pressure of nursing and calmly deal with the emergencies. Once the nursing work errors, an emergency plan should be started at the first time and minimize damage and loss. After dealing with the emergency, we should proceed accountability, sum up the lessons, and discuss the improvements.

Hospital should strengthen the management of goods, regularly check and maintain medical devices and equipment, and promptly reflect and repair once the damage or malfunction. Medical equipment file should be set up for the expensive equipment, we need to keep well the using record of instruments, as well as follow the instructions carefully. Patients with intrusive devices in contact with the patient should be fully disinfected to prevent infection in patients.

#### **3.3.2 To strengthen nurse communication, implement humanistic care**

Hospital should carry out the Nursing Ideal of "Humanistic Care" comprehensively, and take seriously to patients' physical and psychological state. Maintaining effective communication and illness condition with patients and their families and taking health education through symposium, multimedia information or brochure, which can make patients and their families fully understand the risk factors and preventive measures and improve the nursing compliance. To guide patients to take appropriate measures for self-regulation and care, which is conducive to the recovery of the patients.

#### **3.3.3 To improve the hospital environment and perfect the infrastructure**

Hospital should perfect the infrastructure of hospital, investigate the potential risk factors, install handrail to hallways, toilet etc., put scissors, heating bottles etc. away from patients, Place the pager in a patient-friendly location and caregivers need to instruct the patients to operate it correctly. Also we should keep the ward dean and tidy, the ground dry, especially notice patients wear protective shoes in the bath, use the non-slip mat; and place eye-catching sign to the just dragged ground.

#### **3.3.4 To strengthen the training and learning, improve the level of caregivers**

The hospital needs to train the caregivers irregularly as well as strengthen their comprehensive quality, including the cultivation of medical ethics and the training of professional knowledge and skills. Conduct "three-basics" training for

nurses, continuously update and expand the nursing staff theoretical knowledge and professional skills, enhance the professional ethics、 safety awareness and legal awareness, improve the ability to deal with the emergencies, and as far as possible to avoid the occurrence of potential security risks. In addition, hospital has to establish an effective supervision and assessment mechanism to evaluate the training effect and supervise the improvement of the quality of nursing work.

### **3.3.5 To assess safe factors, take predictive nursing measures**

First of all, to improve nurses' professional knowledge and skills fully, which can enable them to make timely and accurate assessment of patients' condition and risk factors and take effective and predictive nursing measures. such as giving protection constraints to the existence of disturbance of consciousness、 emotional restless patients, nurses to explain the role and the usage of restraint straps、 bed to patients and their families and the protection to the safety of patients and the same time to the improvement of patient care satisfaction. Nurses need to tell patients with the feeling of loss or impairment to avoid direct contact with the heat source to prevent accident occurrence.

In order to carry out the work of neurosurgical care regularly, we must strengthen the importance of patient safety, focus on department management、 the quality of nursing staff、 environment management and communication between doctors and patients etc. to strengthen the nursing work and do risk prediction well before it becomes a problem.

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