

# **Application Study of Nursing Risk Management in the Critical Care of Respiratory Patients**

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**Abstract:** Objective To explore the application effect of nursing risk management in nursing respiratory critical patients, improve nursing quality, reduce the occurrence of nursing adverse events, and ensure patient safety. Methods 100 critical respiratory patients admitted to our hospital from January 2020 to January 2022 were selected as research objects, randomly divided into control group and observation group. The control group adopted hospital routine nursing, the observation group adopted nursing risk management, and the nursing effect and nursing satisfaction of patients in the two groups were collected for comparative analysis. Results The occurrence of adverse reactions and nursing satisfaction of patients in the observation group is significantly higher than that of the control group (P < 0.05). Conclusion: nursing risk management can improve patient nursing effect, improve nursing quality and patient satisfaction, and has great significance to ensure patient safety and promote the recovery of the condition, which is worth the promotion and application in clinical nursing.

Keywords: nursing risk management; respiratory critical patients; nursing satisfaction

#### 1. Introduction

Patients with critical respiratory diseases usually have complex and rapidly changing conditions, with high fatality rate and high nursing risk, and clinical nursing work faces many challenges. In the process of nursing, the occurrence of adverse events will occur due to the fluctuation of patients' condition, the improper use of medical equipment, and the inadequate implementation of nursing measures, which may endanger the life safety of patients in serious cases. With the transformation of medical mode and the improvement of patients' requirements for medical quality, the effective reduction of nursing risk and the guarantee of patient safety have become urgent problems to be solved in the field of clinical nursing. Nursing risk management is a systematic management method, which emphasizes the comprehensive identification and evaluation of potential risks in the nursing process, and the development of targeted interventions to reduce the probability of risk occurrence and improve the quality of nursing. This study aims to explore the application value of nursing risk management in the nursing of respiratory critical patients, and provide a theoretical basis for optimizing the nursing mode and ensuring patient safety.

#### 2. Materials and Methods

#### 2.1 General information

In this study, 100 critical respiratory patients were admitted to our hospital from January 2020 to January 2022, and were screened according to the inclusion and exclusion criteria. Inclusion criteria: patients could communicate normally with medical staff, with perfect language function and no dysfunction; patients and their families were fully aware of the study content and signed informed consent. Exclusion criteria: Patients with mental disorders or those unable to cooperate with the study. Patients were divided into observation and control groups, with 50 patients each. The observation group included 25 males and 25 females, with mean age (59.18  $\pm$  3.72); the control group included 24 males and 26 females, with mean age (59.23  $\pm$  3.67). This study was approved by the hospital ethics committee, and all patients participated voluntarily. Comparing the general data of gender and age between the two groups, the difference was not significant (P> 0.05), which was comparable.

## 2.2 General information

Control group: adopt hospital routine care, mainly including reminding patients to eat regularly, popularizing the health education knowledge of respiratory system related diseases, guiding patients to use drugs rationally and matters needing attention, closely observing the changes of the condition, and implementing nursing measures according to the doctor's advice.

Observation group: adopt nursing risk management, mainly including: 1) Establish a nursing risk management team led by the head nurse, clarify the division of labor, reasonably allocate tasks, and ensure the efficient progress of nursing work. According to the actual situation of the hospital and the patient's condition, develop personalized nursing intervention plan, covering monitoring equipment management, instrument failure prevention, emergency plan and other contents, and organize the plan into a book so that the nursing team can be familiar with it, so as to deal with emergencies.2) Strengthen the dynamic monitoring and management of the patient's condition, timely and accurately evaluate the changes of the patient's condition, and immediately notify the attending doctor if any abnormality is found.3) Supervise the operation process of nursing staff to ensure that they perform nursing tasks in strict accordance with the risk management requirements. Organize regular training to improve the theoretical knowledge level, practical skills and responsibility awareness of nursing staff, and optimize the risk management ability.

#### 2.3 Evaluation index

The occurrence of adverse reactions and satisfaction with nursing in the two groups.

#### 2.4 Statistical methods

Data analysis using SPSS 20.0 statistical software, measurement data were expressed as mean  $\pm$  standard deviation (X  $\pm$  s) by t-test; P < 0.05 was statistically significant.

## 3. Results

#### 3.1 Comparison of adverse effects in the two groups

As shown in Table 1, the incidence of adverse reactions in the observation group was 5%, significantly lower than 11% in the control group; the difference was statistically significant (P < 0.05).

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Group	Unexpected Events	Technical Defects	Errors	Total Incidence (%)
Observation (n=50)	0	1	1	2 (4%)
Control (n=50)	1	2	2	5 (10%)
$X^2$	15.63			
P	< 0.05			

Table 1. Comparison of Adverse Reactions Between the Two Groups

# 3.2 Satisfaction with patient care in both groups

As shown in Table 2, the total satisfaction of patients in the observation group was 96%, which was significantly higher than the 80% in the control group, and the difference was statistically significant (P < 0.05).

Group	Very Satisfied	Satisfied	Dissatisfied	Overall Satisfaction
Observation (n=50)	29	19	2	48 (96%)
Control (n=50)	19	21	10	40 (80%)
$X^2$	6.054			
P	< 0.05			

Table 2. Comparison of patient satisfaction with care in the two groups

# 4. Discussion

As a key component of modern nursing, nursing risk management has an important role in the care of respiratory critically ill patients. The results showed that the incidence of adverse reactions in the observation group was significantly lower than that of the control group, and the nursing satisfaction was significantly higher than that of the control group, indicating that nursing risk management can reduce the occurrence of nursing adverse events and improve the quality of nursing and patient satisfaction. Respiratory critical ill patients are complex and rapidly changing, and routine care is difficult to fully cover the potential care risks. Nursing risk management through the systematic assessment of patients' conditions, the formulation of scientific and personalized nursing plans, combined with comprehensive monitoring and management, can fully deal with the complex and changeable clinical situation, so as to reduce the incidence of risk events. Nursing risk management pays attention to teamwork and responsibility division, and through refining task allocation and strengthening

Advanced Journal of Nursing 132 | Min Zheng, et al.

the sense of responsibility, to ensure the standardization and accuracy of nursing measures.

In conclusion, the application of nursing risk management in the care of patients with respiratory critical illnesses has proven to be highly effective. Through systematic risk identification, dynamic monitoring, and targeted intervention measures, it reduces the occurrence of adverse nursing events while improving the quality of care and patient satisfaction. The findings of this study validate the crucial role of nursing risk management in enhancing patient safety and optimizing nursing processes. Moreover, it provides new insights for clinical nursing practice and holds significant potential for clinical promotion.

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