Research on the Implementation of Post-ICU Transition Care Model for Critically Ill Cardiac Surgery Patients

Mayaya , Xing Xiaoying*
Shaanxi Provincial People's Hospital, Xi'an, Shaanxi, China
Corresponding Author

Abstract: Objective: To observe the effect of implementing the post-ICU transition care model for critically ill patients in the cardiac surgery ICU. Methods: A total of 68 critically ill cardiac surgery patients admitted to our hospital from February to December 2024 were selected as the research subjects and randomly divided into two groups. One group (control group, 34 cases) received routine nursing care, while the other group (observation group, 34 cases) received post-ICU transition care. The incidence of adverse events and the psychological status of patients were compared between the two groups. Results: The incidence of adverse events in the observation group was lower than that in the control group (P<0.05). The negative psychological status in the observation group was lower than that in the control group (P<0.05). Conclusion: Implementing post-ICU transition care for critically ill cardiac surgery patients can reduce the incidence of adverse events during the transition period and alleviate patients' negative emotions.

Keywords: Critically Ill Cardiac Surgery Patients; ICU; Transition Care

1. Introduction

Most patients admitted to the cardiac surgery department have complex conditions, long treatment cycles, and slow recovery. After receiving corresponding treatment in the ICU, critically ill cardiac surgery patients need to be transferred to a general ward for continued treatment when their condition stabilizes. However, during this process, the patients' treatment environment changes, and the nursing work in this link requires special attention[1-2]. According to the patients' condition characteristics, providing accurate transition care support ensures comprehensive and continuous nursing support during the transfer from the ICU to the general ward, effectively preventing adverse events[3]. This study mainly observed the effect of the post-ICU transition care model on critically ill cardiac surgery patients.

2. Materials and Methods

2.1 General Data

A total of 68 critically ill cardiac surgery patients admitted to our hospital from February to December 2024 were selected as the research subjects and randomly divided into two groups. One group (control group, 34 cases) received routine nursing care, and the other group (observation group, 34 cases) received post-ICU transition care. In the control group, there were 18 males and 16 females, aged 44-72 years, with an average age of (56.34±1.78) years. The body mass index (BMI) was 21-25 kg/m², with an average of (22.74±1.03) kg/m². In the observation group, there were 19 males and 15 females, aged 45-71 years, with an average age of (56.58±1.59) years. The BMI was 21-25 kg/m², with an average of (22.65±1.15) kg/m². There was no significant difference in baseline data between the two groups (P>0.05).

2.2 Methods

The control group received routine nursing care during this period. Nurses closely monitored the patients' condition changes and administered medications strictly according to the doctors' orders. ICU nurses communicated thoroughly with general ward nurses during the handover to ensure that ward nurses could quickly understand the patients' conditions. Other nursing measures were carried out according to the patients' actual conditions and relevant nursing requirements. The observation group received post-ICU transition care, as follows:
(1) Setting up the post-ICU transition care team:

The team was composed of ICU nurses and general ward nurses. Two days before the planned transfer from the ICU, ward nurses collaborated with ICU nurses to conduct a comprehensive assessment of the patients' conditions, including recovery status and vital sign monitoring, to identify any abnormalities. Ward nurses prepared necessary medical equipment and medications in advance to ensure prompt handling of emergencies.

(2) Implementation of transition care: The care period was set as 1 week. After transferring to the general ward, nurses conducted risk assessments for critically ill cardiac surgery patients to identify potential emergencies and closely monitored changes in cardiac function. For patients with indwelling catheters, meticulous pipeline management was performed to prevent compression or kinking. For patients requiring assisted ventilation, ventilator parameters were adjusted according to their condition changes. Due to concerns about their illness, patients often experienced negative emotions such as tension and fear. Nurses assessed patients' psychological status through communication and provided psychological counseling to relieve stress. During bed rest, nurses assisted patients with regular position changes and placed soft cushions on pressure points to reduce local pressure.

2.3 Observation Indicators
(1) Statistics on adverse events: The incidence of arrhythmia, aspiration, and pressure ulcers during treatment was recorded for both groups.
(2) Assessment of negative emotions: The BAI scale was used to evaluate anxiety before and after nursing, with a scoring range of 0-84 points (higher scores indicating more severe anxiety). The BDI scale was used to evaluate depression, with a scoring range of 0-52 points (higher scores indicating more severe depression).

2.4 Statistical Methods
Data were analyzed using SPSS 25.0. Measurement data were expressed as ($\bar{x}\pm s$) and tested by t-test. Enumeration data were expressed as percentages (%) and tested by chi-square test. A P value <0.05 was considered statistically significant.

3. Results

3.1 Statistics on Adverse Events
The incidence of adverse events in the observation group was lower than that in the control group (P<0.05), as shown in Table 1.

Table 1. Statistics on Adverse Events [n, (%)]

Group	Number of Cases	Arrhythmia	Aspiration	Pressure Ulcer	Incidence
Observation	34	1 (2.94)	0 (0.00)	1 (2.94)	2 (5.88)
Control	34	2 (5.88)	2 (5.88)	2 (5.88)	6 (17.65)
χ^2	-	-	-	-	16.758
P	-	-	-	-	0.001

3.2 Comparison of Negative Psychological Scores

After nursing, negative psychological scores in the observation group were lower than those in the control group (P<0.05), as shown in Table 2.

Table 2. Analysis of Negative Emotions ($\bar{x}\pm s$)

Group	Number of Cases	BAI Score		BDI Score	
		Before Nursing	After Nursing	Before Nursing	After Nursing
Observation	34	40.45±1.15	18.15±1.14	38.45±1.15	16.45±1.85
Control	34	40.34±1.22	32.23±1.15	37.64±1.25	26.86±1.68
t	-	0.585	40.014	0.374	38.094
P	-	0.915	<0.001	0.709	<0.001

4. Discussion
Critically ill cardiac surgery patients have severe conditions, and the transition from the ICU to a general ward involves environmental changes that require an adaptation period, increasing the risk of emergencies affecting their condition[4-5]. Therefore, during this transition, nurses must provide targeted nursing support based on patients' characteristics.

The post-ICU transition care model has a high implementation rate during the transfer of critically ill patients to general wards. It involves collaborative care by ICU and ward

nurses, comprehensive assessment of patients' conditions, and formulation of preventive measures for potential emergencies to facilitate recovery[6]. In this study, the observation group showed significantly lower negative emotion scores and adverse event incidence than the control group during the transition, indicating the effectiveness of this care model in ensuring nursing quality during the transition period.

In conclusion, implementing post-ICU transition care for critically ill cardiac surgery patients can reduce the incidence of adverse events during the transition and alleviate negative emotions.

References

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