Analysis of The Impact of Excellent Event Management on the Safety of Patients and Clinical Caregivers

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Abstract：*Objective:* To investigate the impact of excellent event management in improving patient safety and nursing staff care satisfaction. *Methods:* The study was analyzed by retrospective comparison, and routine management from January 2022 to December 2022 was set as the control group, and excellent event management from January 2023 to January 2024 was set as the study group. The differences in nursing outcomes between both groups were compared. *Results:* The rate of adverse events in the study group (0.61%) was lower than that in the control group (0.96%), and the rate of excellent events in the study group (2.57%) was higher than that in the control group (0.97%) ($P < 0.05$). Meanwhile, the satisfaction level of nursing safety in the study group reached 98.81%, which was much higher than in the control group (92.21%) ($P < 0.05$). *Conclusion:* Nursing excellent event management had a positive impact on improving patient care safety satisfaction, reducing the rate of adverse events, and increasing the rate of reporting excellent events.

Keywords: Excellent events; Quality of care; Impact; Safety management

1. Introduction

Nursing errors occur more frequently due to the heavy workload and complex procedures, as well as the long cycle and lack of accuracy and timeliness in monitoring the patient's condition [1]. Nowadays, hospitals mostly adopt the nursing adverse event management model, i.e., starting from the reporting and analysis of error cases, to enhance the nurses' awareness of risk prevention and strengthen the safety management of patients [2,3]. However, due to some nurses' limited knowledge of their safety and lack of motivation, coupled with the avoidance of the adverse consequences of reporting adverse events, such cases are hidden or omitted, which is not conducive to solving the root causes of the problem [4]. Therefore, ways to reduce the incidence of adverse events and improve patient safety have become a challenge for nursing staff. It has been shown that the implementation of good event management in the nursing process can effectively reduce adverse events and improve the quality of nursing services [5]. Accordingly, this study will investigate the impact of excellent event management on the safety of patients and caregivers.

2. Information and methods

2.1. General information

A total of 10,269 patients admitted to our hospital during the period from January 2022 to December 2022 (control group) and 10,220 patients admitted to our hospital during the period from January 2023 to January 2024 (study group) were selected. There were 5236 male and 5033 female patients in the control group aged 20–80 years old, with an average age of 50.21 ± 5.36 years. In the study group, there were 5269 male and 4951 female patients aged 19–79 years old, with an average age of 49.19 ± 5.69 years. There was no significant difference in the data when comparing the basic information of the two groups ($P > 0.05$).

2.2. Methods

The control group received the traditional management method. Adverse nursing events and excellent events were reported regularly by each department to the nursing department. The root causes of adverse nursing events were analyzed and constant quality corrections were made. The good events, after a brief report, were informed to the nurses and discussed at the meeting.

The study group received excellent event management. An excellent nursing event management team was established. The team consisted of the head nurse and two charge nurses, with the head nurse as the core team leader. The team worked to develop, implement, and monitor a proactive reporting mechanism for nursing care events. Pre-conferences were initiated to define a policy system related to nursing excellence events. An incident management system was integrated and a quality control system was developed to standardize the reporting and management of excellent incidents. Relevant documents were uniformly developed to support event reporting, recording, and management, and the excellent nursing events were accurately defined and classified. The process of classifying and reporting excellent events was also optimized. A report on the incidence of excellent nursing events was created via an electronic file and a WeChat platform was established. A monitoring system for active reporting of good nursing events was set up to define the scope of good events and the nurses were encouraged to actively report these events. The management team comprehensively assessed and analyzed the authenticity and effectiveness of excellent nursing instances within eight hours and categorized them. As long as the report is specified as an example of excellent nursing care a sharing session was arranged by the supervising nurse for that day. Cases of excellent incidents were also shared through departmental groups, shift handovers, and WeChat postings. The excellent examples were disseminated to all nurses in the hospital and positive incentives and recognition were given to those involved. The training of specialized nursing personnel was strengthened to improve the professional quality of nursing staff. Specialty theory and safety education were popularized by emphasizing the importance of active reporting of excellent events and their goals and values, and nursing workers were familiarized with their coverage and reporting protocols. Subsequently, humanized care was advocated to create a safe and effective reporting atmosphere, dispel nurses' worries, and enhance the concept of safety and a sense of responsibility.

2.3. Observation indicators

The incidence of adverse events and excellent events between the two groups were compared. Adverse events were categorized as unintended phenomena that occur during the nursing process, such as specimen collection deviations, fall/bed fall events, medication misuse, unplanned extubation, and pressure ulcers [6]. Patient satisfaction with nursing care before and after intervention was assessed using the nursing satisfaction questionnaire. The questionnaire contained 17 questions totaling 100 points, which were divided into three levels: very satisfied (90–100 points), satisfied (60–89 points), and dissatisfied (0–59 points). Satisfaction = very satisfied rate + satisfied rate.

2.4. Statistical methods

The SPSS 20.0 statistical software was used to process the data. Measurement data were expressed as mean ± standard deviation and the count data were expressed as %. Measurement data were analyzed using a t-test, and count data were analyzed using a chi-squared (χ^2) test. Results were considered statistically significant at $P < 0.05$.

3. Results

3.1. Comparison of adverse and excellent event rates between the two groups

As shown in **Table 1**, the rate of adverse events in the study group (0.61%) was lower than that in the control group (0.96%), and the rate of excellent events in the study group (2.57%) was higher than that in the control group (0.97%) ($P < 0.05$).

Table 1. Comparison of adverse and excellent event rates between the two groups [n (%)]

Group	Cases, n	Adverse event	Excellent event
Control group	10,269	99 (0.96)	100 (0.97)
Study group	10,220	62 (0.61)	263 (2.57)
χ^2		7.211	4.487
P		0.002	< 0.001

3.2. Comparison of nursing satisfaction between the two groups

As shown in **Table 2**, the nursing satisfaction of the study group (98.81%) was better than that of the control group (92.21%) ($P < 0.05$).

Table 2. Comparison of nursing satisfaction between the two groups [n (%)]

Group	Cases, n	Very satisfied	Satisfied	Unsatisfied	Total satisfaction
Control group	10,269	5871 (57.17)	3598 (35.03)	620 (6.04)	9469 (92.21)
Study group	10,220	6521 (63.81)	3578 (35.01)	121 (1.18)	10099 (98.81)
χ^2					9.633
P					0.031

4. Discussion

Nursing staff healthcare workers are at the forefront of their duties to ensure patient safety, provide high-quality care services, and prevent adverse events [7,8]. However, based on a variety of factors, a low percentage of nursing adverse events are actively and consciously reported, but not all incidences are reported. Some studies have shown that the factors affecting the reporting of adverse events are: (1) there is no strict reporting policy, and the reporting mechanism is yet to be standardized; (2) the way of dealing with adverse events is restricted; (3) nurses lack the emphasis and awareness of the patient's safety; (4) the adverse event reporting system and the reporting process are not smooth; (5) external interferences, such as the environmental conditions; (6) the insufficient capacity of the nursing management personnel to deal with the adverse nursing events [9,10]. Currently, hospitals often use punitive and non-punitive ways to manage adverse events. Nonetheless, nursing

staff remain in a passive state of receiving messages, a bad learning effect, and seldom creates an atmosphere of safety culture. Excellent event management is a new concept of safety management. It is patient-centered and uses professional knowledge to carry out quality and meticulous work, active observation of patients, conduct comprehensive evaluation, and accurate determination of disease and effective treatment. It also supplies doctors and nurses with relevant information and identifies and prevents adverse events to avoid serious medical disputes and improve patient safety [11,12].

This study showed that the rate of adverse events in the study group (0.61%) was lower than that of the control group (0.96%), and the rate of excellent events in the study group (2.57%) was higher than that of the control group (0.97%) ($P < 0.05$). The nursing safety satisfaction of the study group (98.81%) was higher than that of the control group (92.21%) ($P < 0.05$). The results of the study found that the implementation of excellent event management helps to improve nurses' critical thinking skills and comprehensive professional qualities, and improves their ability to learn and manage a variety of events. This enhances their ability to cultivate the correct way of behavior and has a positive impact on the quality of care, patients' feelings, and patients' satisfaction with nursing care. Traditional management methods advocate the establishment of a punitive and non-punitive nursing adverse event management mechanism, but it demotivates nurses to take the initiative to report. In contrast, excellent event management can enhance the nursing staff's sense of accomplishment and motivation by improving the reporting process, enhancing the excellent event management system, increasing communication, and improving the nursing staff's professional competence. Overall, this can exhibit a positive impact on hospital management [13]. In this paper, based on the traditional treatment of adverse nursing events, a set of standardized excellent event management systems is constructed. With the help of diversified sharing methods and thematic promotion channels, the reporting, sharing, and learning of excellent nursing cases are promoted, to enhance the nurses' work enthusiasm and professional satisfaction. The improvement of the nurses' professional competence and work enthusiasm can thus create a positive and upward safety culture atmosphere within the hospital.

5. Conclusion

Excellent nursing event management significantly enhanced patient satisfaction with nursing safety, reduced the incidence of adverse events, and greatly improved the reporting rate of excellent events, so it has a strong practical value and is worth promoting widely.

Disclosure statement

The authors declare no conflict of interest.

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