Journal of Biosciences and Medicines, 2025, 13(4), 359-365
https://www.scirp.org/journal/jbm
ISSN Online: 2327-509X
ISSN Print: 2327-5081

Application of 7S Management Mode in the Nursing Management of Patients with Upper Gastrointestinal Bleeding

Cong Hou, Dongmei Xiong, Yali Zhong*

Department of Gastroenterology, Zigong First People's Hospital, Zigong, China
Email: 2738426288@qq.com, *1725998749@qq.com

How to cite this paper: Hou, C., Xiong, D.M. and Zhong, Y.L. (2025) Application of 7S Management Mode in the Nursing Management of Patients with Upper Gastrointestinal Bleeding. *Journal of Biosciences and Medicines*, **13**, 359-365.
https://doi.org/10.4236/jbm.2025.134029

Received: March 24, 2025
Accepted: April 20, 2025
Published: April 23, 2025

Abstract

Objective: To analyze the application effect of 7S management model in the nursing management of patients with upper gastrointestinal bleeding. **Methods:** A retrospective analysis was conducted on 143 patients with upper gastrointestinal bleeding admitted to the hospital from April 2023 to November 2023 and December 2023 to June 2024, which were divided into control group and observation group according to the time period, 71 cases in each group, the former was the control group, the observation group implemented the 7S management mode, and analyzed the bleeding stopping time, hospitalization time, complication occurrence and nursing satisfaction. **Results:** The observation group was significantly lower than the control group in terms of bleeding stop time, hospital stay and complication rate ($P < 0.05$); the nursing satisfaction of patients in the observation group was significantly higher than that of the control group ($P < 0.05$). **Conclusion:** 7S management mode improves the quality of nursing management for patients with upper gastrointestinal bleeding. The application of this mode helps to alleviate bleeding symptoms, reduce the incidence of complications and shorten the length of hospital stay, thus improving the patient satisfaction with nursing.

Keywords

7S Management Mode, Upper Gastrointestinal Bleeding, Nursing Management, Nursing Quality

1. Introduction

Upper gastrointestinal bleeding refers to bleeding caused by lesions in the esophagus, stomach, duodenum, and biliary pancreas above the Treitz ligament, includ-

ing the upper segment of the jejunum after gastroduodenal anastomosis. This condition is characterized by rapid changes and severe severity, with a mortality rate as high as 2% to 15% [1] [2], posing a serious threat to patient health and safety. Therefore, how to maximize patient safety, improve the treatment level of nursing staff, and enhance patient outcomes is an urgent issue in clinical practice. The 7S management model is a new type of management approach that includes seven elements: sorting, setting in order, cleaning, etc., focusing on cultivating the professional qualities of healthcare workers. By coordinating these elements, it optimizes the work environment and provides effective services, thereby improving management quality [3]. This model has been widely applied in the medical field, and relevant studies have confirmed [4]-[6] that the 7S management model can improve nursing quality and safety, standardize item management in wards, provide better care for patients, and increase patient satisfaction. Based on this, this study aims to investigate the application effects of the 7S management model in patients with upper gastrointestinal bleeding. The study retrospectively analyzed data from 142 patients with acute upper gastrointestinal bleeding admitted to the hospital between April 2023 and November 2023, as well as December 2023 and June 2024. It explores the application effects of the 7S management model in clinical nursing for patients with acute upper gastrointestinal bleeding. The results are reported below.

2. Materials and Methods

2.1. Clinical Data

The data of 143 patients with acute upper gastrointestinal bleeding admitted to the hospital from April 2023 to November 2023 and December 2023 to June 2024 were 71 subjects: control group and observation group, 36 male patients and 35 female patients, aged from 32 to 81 years, with a mean of (46.8 ± 10.6) years. The control patients had 38 male patients and 33 female patients, aged from 30 to 79 years, with a mean of (45.3 ± 9.7) years. The general data of the two groups were compared, but they were not statistically significant ($P > 0.05$) and comparable.

Inclusion Criteria: 1) Age ≥ 18 years; 2) Confirmed diagnosis of upper gastrointestinal bleeding through laboratory tests or endoscopy; 3) Clear consciousness and normal communication ability; 4) Both the patient and their family members have been informed about this study and have signed an informed consent form. Exclusion Criteria: 1) Severe underlying diseases; 2) Severe cardiac, hepatic, or renal dysfunction; 3) Patients with mental disorders or cognitive impairments.

2.2. Nursing Methods

The control group adopts routine nursing, and the observation group implements the nursing plan of 7S management mode on the basis of routine nursing. The specific measures are as follows: 1) Establish a 7S management team: the head nurse, 2 head nurses in charge and 5 responsible nurses are selected to form the 7S management team, with the head nurse as the leader and the head nurse as the deputy

leader. The group leader and deputy group leader will organize the professional nursing knowledge, key points and experience of the department to carry out intensive training and education to improve the comprehensive quality of nursing staff. At the same time, the purpose, method and specific implementation of 7S management application should be explained. Nursing staff need to participate in relevant assessment, and nursing staff who fail the assessment need to strengthen training again until they pass the assessment. 2) Specific content of the 7S Management Model: a) Sorting: Nursing staff responsible for designated areas should regularly organize various items in their management zones. Items that have expired or are waste should be reported to the general affairs department and equipment department for disposal. Items should be repositioned based on usage frequency and importance; for example, frequently used items should be placed in easily accessible locations, while less frequently used items should be placed elsewhere. Items should be sorted by type and labeled accordingly, with medications categorized as high-risk or non-high-risk, stored in original boxes, and labels standardized to improve work efficiency; b) Section (Setting): Common medical equipment and medications should be managed by designated personnel and inspected weekly. Medical supplies in the warehouse should be arranged according to their expiration dates to ensure proper use and avoid waste. When arranging items, it is also necessary to consider the storage conditions to ensure their usability; c) Cleaning: Clean the ward environment on time and disinfect the air regularly. Medical equipment and related items within the ward should be maintained and repaired periodically. Medical waste must be handled strictly according to hospital regulations to prevent contamination of the ward; d) Sanitation: After cleaning the ward, maintain a clean and tidy environment. Healthcare staff should present a good appearance and behave kindly. Medical equipment and the environment should be kept in good condition to avoid patients developing distrust towards the hospital; e) Professionalism: Regularly conduct nursing skills training, focusing on aspects such as humanistic care, service etiquette, communication skills, and nursing abilities. Healthcare staff should maintain a friendly and composed attitude during communication to build harmonious relationships with patients, which helps improve the impression of both patients and their families. At the same time, enhance the professional protection awareness of nursing staff and develop scientific emergency response plans to protect their personal safety; f) Safety: The team leader and deputy team leader should conduct regular and irregular quality inspections of nursing care. Inspections are carried out once a week and spot checks are conducted irregularly each month, mainly focusing on observing the quality of nursing care and potential safety hazards in the department, such as proper placement of items, standardized use of medicines or medical devices, etc., to ensure the safety of the ward environment. Additionally, improve the upper gastrointestinal bleeding emergency response plan and conduct emergency drills according to the plan every month to ensure that nurses can immediately activate the emergency response plan in case of unexpected events. Using methods such as "weekly bedside rounds"

and "ten minutes of daily study," promptly learn specialized knowledge, hospital infection control, occupational exposure, and adverse event warning education to eliminate safety hazards. g) Conservation: Conservation is a traditional virtue. In clinical work, develop good habits like turning off lights when not in use and turning off water taps when not needed, to avoid wasting medical resources. On the basis of meeting patient needs, strictly manage the use of medications and medical equipment records, especially the use of disposable medical supplies.

2.3. Observing Indicators

The differences in bleeding cessation time, hospital stay, and complications (rebleeding, infection, organ failure) during hospitalization were observed between the two groups, and the nursing satisfaction of the two groups was investigated.

2.4. Statistical Analysis

Statistical analysis was performed using SPSS 16.0 statistical $\bar{x}$ software. Measurement data were expressed by ($\bar{x}$ ± s), differences between groups and within groups were tested by t-value, and count data by $P < 0.05$.

3. Results

3.1. Differences in Treatment-Related Indicators between the Two Patient Groups

The observation group was significantly lower than the control group in terms of bleeding cessation time, hospitalization time and complication incidence (rebleeding, infection, organ failure) ($P < 0.05$), see Table 1.

Table 1. Differences in treatment-related indicators between the two patient groups.

Group	Bleeding stop time (h)	Length of stay (d)	Complication rate (n, %)
Observation group	4.6 ± 1.7	6.9 ± 1.4	3 (4.2)
Control group	8.3 ± 2.3	9.8 ± 2.3	6 (8.5)
t/χ^2	5.365	5.214	4.854
P	0.042	0.041	0.038

3.2. Satisfaction with Care in Both Groups

Patients in the observation group were significantly more satisfied with the care than those in the control group ($P < 0.05$), as shown in Table 2.

4. Discussion

Upper gastrointestinal bleeding is a common and severe clinical condition, with excessive blood loss potentially leading to shock and death. Currently, there are many causes of upper gastrointestinal bleeding, which can be mainly summarized into three categories: systemic diseases, esophageal and gastric variceal rupture,

Table 2. Satisfaction with care in both groups.

Group	Very satisfied	Be basically satisfied	Discontent	Overall satisfaction rate (%)
Observation group (n = 71)	31	37	3	95.8
Control group (n = 71)	26	34	11	84.5
χ^2				5.415
P				0.043

and non-variceal related lesions [7]. Systemic diseases include cardiovascular and cerebrovascular diseases, hematological disorders, and coagulation dysfunction, all of which can trigger this condition; esophageal and gastric variceal rupture bleeding is commonly seen in patients with liver cirrhosis; non-variceal-related lesions are often caused by peptic ulcers and other digestive tract diseases [8]. Symptoms of upper gastrointestinal bleeding are quite pronounced, including hematemesis and melena, and due to massive bleeding, patients may experience dizziness, palpitations, cold extremities, decreased blood pressure, and even fainting or shock [9]. Therefore, timely and effective treatment and nursing measures are crucial for reducing the mortality rate of patients.

The 7S management model is a nursing approach introduced from Japan. It primarily focuses on improving the quality of care and enhances the quality awareness of nursing staff by continuously refining the effectiveness of nursing management, thereby strengthening the monitoring of clinical nursing work [4]. Enhancing the service consciousness of nursing staff is a crucial foundation for improving nursing quality. Strengthening clinical nursing management aims to identify loopholes and risks in clinical nursing, providing effective evidence for establishing systematic nursing management standards. The implementation of the 7S management model mainly involves forming corresponding management teams, clearly defining responsibilities, and actively participating in nursing management, thus fostering a cohesive nursing team [5]. Members can actively explore and identify gaps in nursing practices, refine nursing management standards, establish scientific safety management systems, optimize nursing work, ensuring that nursing staff have guidelines to follow; instruments and equipment need proper management and maintenance, and medical supplies should be placed according to their expiration dates. Research has shown that the application of the 7S management model can effectively reduce issues such as expired medications and waste, thereby saving medical costs [10]. At the same time, the 7S management model improves the service quality of nursing staff through environmental and behavioral management, addressing problems like disorderly work environments and enhancing patient satisfaction with hospital services [11] [12].

In this study, the observation group showed significantly lower bleeding cessation time, hospital stay, and complication rates (rebleeding, infection, organ failure) compared to the control group ($P < 0.05$). This is mainly due to the 7S man-

agement model, which focuses on organization and safety. By organizing medical equipment and optimizing emergency procedures for upper gastrointestinal bleeding patients, the efficiency and quality of nursing work have been improved. Additionally, through personalized training programs and regular emergency drills, the professional skills and operational levels of nursing staff have been enhanced, thereby reducing nursing risks and adverse events [13]. Furthermore, nursing staff provide targeted care according to established protocols, improving on-site management standards and nursing quality in the ward, thus enhancing treatment success rates, alleviating clinical symptoms, and reducing bleeding cessation time, hospital stay, and complication rates. Moreover, the research results show that patient satisfaction with nursing care in the observation group was significantly higher than in the control group ($P < 0.05$), with all differences being statistically significant. The 7S management approach is people-oriented and practical. Under this model, nursing staff can enhance their safety awareness, adhere to nursing procedures, and eliminate potential hazards [14]. Improved safety awareness among nursing staff enhances their ability to respond to emergencies, enabling them to take timely and appropriate measures when critical incidents occur, thereby improving the quality of nursing care and providing better service to patients. At the same time, this model emphasizes the cultivation of nursing staff's professional qualities and sense of responsibility in aspects such as competence. It can standardize the behavior and language of nursing staff, thereby building a harmonious relationship between nurses and patients and improving patient satisfaction. However, this study has certain limitations in terms of sample size and geographical selection. Future research could involve multicenter studies with larger samples.

5. Conclusion

To sum up, the application of 7S management mode can help alleviate the bleeding symptoms of patients with upper gastrointestinal bleeding, reduce the incidence of complications, shorten the length of hospital stay, and significantly improve patient satisfaction, which is worth popularizing and applying.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Kou, J.J. and Li, X.L. (2024) Advances in Epidemiology and Etiology of Upper Gastrointestinal Bleeding. *Yulin Medical Association. Proceedings of the Fifth National Pharmaceutical Research Forum* (*Volume III*), Xi'an, 20 June 2024, 434-437.

[2] Zhuang, H.N. and Xie, M.R. (2024) Research Progress on Etiological Changes and Risk Assessment of Upper Gastrointestinal Bleeding. *Journal of Clinical and Experimental Medicine*, **23**, 109-113.

[3] Zhang, H.F. (2024) Evaluation of the Effect of 7S Management Model on Operating Room Nursing Management. *Chinese Journal of Metallurgical Industry Medicine*, **41**, 617-618.

[4] Yang, J.Y. (2019) Application of 7S Management Mode in the Care of Patients with Cerebral Hemorrhag. *China Health Industry*, **16**, 34-35.

[5] Gali, W.L. (2021) Application of 7S Management Model in Hospital Nursing Management. *Western Traditional Chinese Medicine*, **34**, 131-133.

[6] Chen, C., Weng, M.H., Tong, X.Y., *et al.* (2024) Application of 7S Management Integration Checklist Reform Nursing Model in Mechanical Ventilation Airway Management for ICU Critically Ill Patients. *Heilongjiang Medical Science*, **47**, 96-98.

[7] Rațiu, I., Lupușoru, R., Popescu, A., Sporea, I., Goldiș, A., Dănilă, M., *et al.* (2022) Acute Gastrointestinal Bleeding: A Comparison between Variceal and Nonvariceal Gastrointestinal Bleeding. *Medicine*, **101**, e31543. https://doi.org/10.1097/MD.0000000000031543

[8] Kate, V., Sureshkumar, S., Gurushankari, B. and Kalayarasan, R. (2022) Acute Upper Non-Variceal and Lower Gastrointestinal Bleeding. *Journal of Gastrointestinal Surgery*, **26**, 932-949. https://doi.org/10.1007/s11605-022-05258-4

[9] Meng, R., Wang, X., Shi, W.N., *et al.* (2024) The Diagnostic and Therapeutic Value of Emergency Gastroscopy in Upper Gastrointestinal Bleeding. *Journal of Dezhou University*, **40**, 16-19.

[10] Liu, L. (2018) Application of 6S Management in Ward Management. *China Continuing Medical Education*, **10**, 54-56.

[11] Zhuang, N.T. (2024) Application Effect of 7S Management Method in ICU Instrument and Equipment Management. *Medical Equipment*, **37**, 28-30, 34.

[12] Yang, H. and Yuan, Y. (2022) Analysis on the Application of 7S Management Model in Hospital Management. *China Health Standard Management*, **13**, 36-39.

[13] Bai, Y.N., Su, Y.M., Zhang, M.K., *et al.* (2021) Application of 7S Management Mode in Reducing Delirium in EICU Patients. *Health Care Medicine Research and Practice*, **18**, 111-113, 140.

[14] Wang, Q., Lin, Y.J., Jiang, J.F., *et al.* (2022) Application of 7S Management Integration List Reform Method in Humidification Management of Artificial Airway in ICU Patients. *Nursing Practice and Research*, **19**, 283-286.