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Exploring the Application Effect of SBAR Communication Mode in Emergency Nursing

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Abstract

Objective: To explore the effect of the standardized communication mode (SBAR) in emergency nursing. **Methods**: A total of 116 patients in the emergency department from January 2021 to December 2021 were selected as research subjects. The patients were retrospectively divided into a control group and an observation group based on their order of admission, with 58 cases in each group. The control group received conventional emergency nursing, while the observation group received SBAR-based communication in addition to conventional care. The efficiency indicators of emergency nursing treatment were compared between the two groups. **Results**: The efficiency indicators for emergency nursing treatment (including emergency retention time, emergency reception time, and nursing treatment time) in the observation group were significantly shorter than those in the control group, with statistical significance (P = 0.000). **Conclusion**: The SBAR communication mode can improve the efficiency of emergency nursing treatment and is of great significance for enhancing the quality of emergency care.

Keywords Emergency nursing; SBAR communication mode; Effect

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The emergency department is the hospital's direct interface with the outside world and a key area for rescuing critical, severe, and emergency patients[1]. Critically ill patients present with complex, critical, urgent, and sudden conditions, requiring close monitoring and challenging transfers[2]. Miscommunication is a leading cause of clinical errors, such as misdiagnosis and medical accidents[3]. Improving communication between medical staff helps prevent adverse outcomes and fosters harmony and progress within the medical team[4]. SBAR is an acronym for "situation," "background," "assessment," and "recommendation." It is a standardized and structured communication model recommended by the World Health Organization, serving as an efficient tool to promote communication and is applicable to all types of information transmission[5]. SBAR involves four stages: "situation," "background," "assessment," and "recommendation" [6]. It has been adopted and refined in various clinical care units across hospitals, becoming an industry-leading communication model that integrates "model training, model application, and model feedback" [7]. Currently, the SBAR communication model is primarily used domestically for condition reporting, communication between medical staff and patients, handovers during nursing shifts, safe patient transfers, and nursing education[8]. This model enables nurses to gather more comprehensive information about the patient's condition and implement evidence-based nursing interventions, minimizing adverse events and improving the quality of emergency care[9]. This article specifically analyzed the application of the SBAR model in 116 patients in the emergency department from January 2021 to December 2021, and the report is as follows.

1 Subjects and Methods

1.1 Subject Information

A total of 116 patients in the emergency department where the author worked, from January 2021 to December 2021, were selected as research subjects and were retrospectively divided into a control group and an observation group according to the order of admission, with 58 cases in each group. The patients in the observation group were aged 31 to 70 years, with an average age of (54.0 ± 12.6) years; there were 38 males and 20 females. Reasons for visiting included 38 cases of accidental injuries and 20 cases of acute attacks of underlying conditions. The patients in the control group were aged 30 to 70 years, with an average age of (53.4 ± 12.1) years; there were 36 males and 22 females. Reasons for visiting included 41 cases of accidental injuries and 17 cases of acute attacks of underlying conditions. The data from both groups were included in the statistical analysis, and the differences were not statistically significant ($P > 0.05$).

1.2 Case Inclusion Criteria

All 116 patients were admitted to the emergency department of the author's unit. Patients were admitted to the hospital either by ambulance or on their own. All patients were conscious and able to communicate with medical staff. Patients transferred for treatment or those with special

conditions (such as mental illness) were excluded.

1.3 Methods

The patients in the control group received conventional emergency nursing, which mainly involved routine disease monitoring, drug interventions, health education, and specialist follow-up. The patients in the observation group received SBAR-based care in addition to conventional methods.

1. **Form an SBAR team**: Relevant work plans, personnel responsibilities, and other matters were formulated. Based on the characteristics of diseases in the emergency department and relevant literature from the database, an SBAR mode specification was developed. This included nursing teaching courseware for disease treatment, clinical application examples, and other materials. Team members were trained through theoretical instruction, simulation case drills, skill demonstrations, and were only allowed to join the team after passing an assessment.

2. **Create the SBAR standard form**:

    - The **S module** includes detailed information such as the patient's name, gender, age, time of visit, and preliminary diagnosis.
    - The **B module** covers the patient's chief complaint, past medical history, current medical history, and abnormal examination results.
    - The **A module** includes the patient's vital signs, skin condition, infusion and transfusion details, and pipeline management.
    - The **R module** records the nurse's detailed judgment of the patient's condition, changes in vital signs, lesion description, airway secretions, and pipeline status.

3. **Specific application of SBAR**: When receiving patients in the emergency department, the SBAR mode was immediately integrated into the nursing process. This included the steps of collecting patient information, tracking their condition, assessing the patient's status, implementing nursing interventions, and conducting shift handovers. This ensured continuity, integrity, and an evidence-based approach throughout the entire nursing process.

1.4 Therapeutic Indicators

The efficiency indicators of emergency nursing treatment for the two groups of patients were recorded, including emergency reception time (the time from when the patient enters the emergency room to the start of nursing treatment), emergency retention time (the total time the patient stays in the emergency room), and nursing treatment time (the total time the patient receives nursing care in the emergency room). A statistical comparison was then conducted.

1.5 Statistical Analysis

All the data in this study were processed using SPSS version 24.0, with a statistical significance threshold of $P < 0.05$. Categorical data were expressed as "n (%)" and tested using the χ^2 test. Continuous data were expressed as $\bar{x} \pm s$ standard deviation (SD), and pairwise comparisons were performed using the t-test for grouped samples. When the variances of the two groups were not homogeneous, the t' test was used.

2 Results

The emergency retention time, emergency reception time, and nursing treatment time for patients in the observation group were shorter than those in the control group, with statistically significant differences ($P = 0.000$). See Table 1.

Table 1: Comparison of the efficiency of emergency nursing treatment between the two groups of patients ($\bar{x}\pm$ SD)

Group	Number of cases	Emergency reception time (min)	Emergency retention time (min)	Nursing treatment time (min)
Observation group	58	10.6±3.4	31.4±5.8	23.2±5.1
Control group	58	18.1±4.8	38.4±7.7	29.3±8.4
T Value	-	-9.710*	-5.530*	-4.727*
P Value	-	0.000	0.000	0.000

Note: * indicates that the data variance for this group is not homogeneous, and the result uses the t' value.

3 Discussion

Nursing work in the emergency department is characterized by a high level of busyness and urgency. This is especially true when managing the initial diagnosis and rescue of critically ill patients, where patient diagnoses are often unclear, conditions are unknown, and they can change rapidly. If timely and proper treatment is not administered, it may negatively impact the patient's treatment and safety[10]. Therefore, how to further improve rescue and care in the emergency department is a key area of focus.

The SBAR mode is a structured communication method that has been applied in clinical nursing practice in recent years. Originally, it was widely used in fields such as aviation and was later introduced into medical treatment and care[11]. In nursing, the SBAR mode ensures the accurate transmission of handover information, optimizes processes, and follows "best practice" procedures while being cost-effective. The handover system reflects the link management of nursing work overseen by nursing managers[12-15], improves nursing efficiency, reduces the frequency of adverse events, and serves as a fast, effective, and structured communication tool[16].

The application of the SBAR mode in the rescue and care of emergency department patients involves developing a standardized communication framework for disease treatment. All nursing staff undergo training and assessment to ensure they can competently perform emergency care

and rescue. This approach saves time during critical situations and improves the overall efficiency of rescue efforts, which is of great significance for the subsequent treatment of patients.

From the results of this study, the efficiency indicators for emergency care and treatment (emergency reception time, emergency retention time, and nursing treatment time) were significantly shorter in the observation group compared to the control group, with $P < 0.05$. This demonstrates that SBAR can enhance the efficiency of emergency care and treatment.

In conclusion, the application of SBAR in the emergency department improves the efficiency of care and treatment and holds significant importance for the subsequent rescue of patients.

Article History

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References

[1] Xu Yujun. Research on the Application Status of SBAR Standardized Communication Mode in Emergency Nursing [J]. Shanxi Medical Journal, 2022, 51(04): 403 - 405.

[2] Jiang Shirui. Application Status and Prospect of SBAR Communication Mode in Domestic Clinical Nursing Practice [J]. Contemporary Nurse (Late Issue), 2024, 31(05): 10 - 14. DOI: 10.19793/j.cnki.1006 - 6411.2024.15.003.

[3] Zhang Jing, Sun Qingzhou, Wu Bao. Doctor-Patient Risk Communication: From the Perspective of Role and Information Matching [J]. Advances in Psychological Science, 2023, 31(1): 99 - 107.

[4] The Joint Commission International. Hospital Accreditation Standards of The Joint Commission International [M]. Beijing: Peking Union Medical College Press, 2017: 36.

[5] MULLER M, JURGENS J, REDAELLI M, et al. Impact of the Communication and Patient Hand-off Tool SBAR on Patient Safety: A Systematic Review [J]. BMJ Open, 2018, 8(8): e22202.

[6] Yao Yan, Ding Zhengyan, Xu Yinyue, et al. Application of Modified SBAR Shift Handover in the Handover Nursing Work of High-Risk Patients during Outpatient Examinations [J]. Journal of Qilu Nursing, 2024, 30(12): 128 - 130.

[7] Dai Meifen, Liu Yan, Huang Zhen, et al. Application of SBAR Communication Mode in Building Regional Nursing Safety [J]. Journal of Qilu Nursing, 2021, 27(15): 38 - 41.

[8] Zhu Jianan, Kang Xiaofeng, Chen Jingli. Application Progress of ISBAR Communication Mode in Clinical Nursing [J]. Chinese Nursing Management, 2019, 19(8): 1276 - 1280.

[9] Fan Li, Kong Weina, Liu Weitao, et al. Application of FOCUS-PDCA Cycle Procedure Combined with Modified SBAR Communication Mode in Surgical Nursing of Patients with Kyphosis [J]. China Medical Herald, 2022, 19(24): 155 - 158.

[10] Jiao Wei, Xu Haiting. Evaluation of the Application Effect of WeChat Combined with SBAR Communication Method in Emergency Nursing Management [J]. Chinese Practical Nursing Magazine, 2022, 38(3): 224 - 228.

[11] Zhang Rong, Yang Kunkun. Discussion on the Application of SBAR Communication

Method Combined with Quality Control Circle Nursing Teaching Mode in Neurosurgery Clinical Teaching [J]. Chinese Community Doctors, 2020, 36(36): 151 - 152.

[12] Guo Juan, Ma Yuxia, Li Linjie, et al. Meta-Analysis of the Application Effect of SBAR Standardized Communication Mode in Nursing Shift Handover [J]. Journal of Nursing Administration, 2018, 18(12): 865 - 869.

[13] Chen Hongmei, Zhang Yu, Lin Qiushui, et al. Application of SBAR Communication Mode in Orthopedic Bedside Shift Handover [J]. Journal of Navy Medicine, 2021, 42(4): 475 - 478.

[14] Zhu Qingwen, Yang Yuan, Liao Qin, et al. Application of SBAR Communication Mode in Shift Handover Management of Critically Ill Patients [J]. Nursing Research, 2017, 31(12): 1532 - 1534.

[15] Liu Haixian, Han Yanan, Guan Zhonghua, et al. Application of SBAR Communication Mode in Postoperative Transfer Handover of Surgical Patients [J]. Chinese Journal of Drugs and Clinical, 2019, 19(17): 3016 - 3018.

[16] Luo Nan, Li Pingping, Gao Lihua, et al. Application Progress of SBAR Communication Mode in Clinical Nursing [J]. Chinese Journal of Modern Nursing, 2016, 22(32): 4733 - 4736.