

Nurse performing handover using the SBAR method at the Guido Valadares National Hospital, Timor-Leste

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ABSTRACT

Background; structured handover is a major cause of clinical miscommunication and patient safety incidents in the emergency department. The SBAR (Situation, Background, Assessment, Recommendation) method is recommended as a standard for patient safety-based communication, but its implementation in hospitals in developing countries is still limited. Objective: To describe the improvement in nurses' performance in handovers using the SBAR method. **Methods:** This study used a descriptive design that describes changes in nurses' knowledge and skills after handovers using the SBAR method were implemented in the ward. A sample of 20 nurses was taken from the entire population of nurses in the Internal Medicine Unit at Guido Valadares National Hospital in Dili. Knowledge and skills data were collected before and after implementation using a questionnaire and checklist. **Results:** Average knowledge increased from 56.4 to 84.7 (+50.2%). The proportion of nurses performing structured handovers increased from 30% to 85%. The implementation of SBAR improved communication clarity, accelerated clinical decision-making, and improved continuity of care. **Conclusion:** The implementation of the SBAR method of handover can be continued to improve effective communication which will have an impact on improving the quality of nursing services.

Keywords: SBAR, handover, knowledge, skill, nurse

Background

Patient safety is a global issue that is a top priority in modern healthcare systems (1). The World Health Organization emphasizes that most patient safety incidents are caused by communication breakdowns among healthcare workers, particularly at critical junctures such as patient handover (2). Ineffective communication contributes to clinical information errors, delays in decision-making, and an increased risk of adverse events (2)(3).

In the context of emergency care, the high complexity of patients' conditions demands rapid, accurate, and structured communication. An unsystematic handover can result in the loss of critical information about a patient's condition, thereby directly impacting the quality of nursing care and patient safety (4)(5). Therefore, improving the quality of clinical communication is one of the key strategies in efforts to improve the quality of healthcare worldwide.

At the local level, handover communication issues were also identified in the Internal Medicine Unit at the Guido Valadares National Hospital (HNGV) in Dili. Preliminary study results indicate that nursing handover procedures are not yet being carried out optimally or in a standardized manner. Variations in the transmission of information among nurses in terms of data completeness, communication structure, and clarity of recommendations result in patient clinical information not always being conveyed fully and consistently. This situation aligns with previous research findings indicating that unstructured communication increases the risk of clinical errors and reduces service efficiency (6)(7).

In addition, handoffs are still largely conducted based on individual practices rather than standardized guidelines, leading to differences in perception among nurses. This situation results in

reduced service efficiency, increased risk of delayed interventions, and disruption to the continuity of nursing care (8)(9). In the long term, these communication gaps have the potential to undermine the quality of care and patients' trust in the healthcare system (10).

In theory, the quality of health care can be analyzed using the Donabedian model, which emphasizes the relationship between the structure, process, and outcomes of care (11). In this model, handover communication is a critical component of the process that significantly impacts the quality of care and patient safety. One globally recommended structured communication approach is the SBAR method (Situation, Background, Assessment, Recommendation), which has been shown to improve the clarity, completeness, and accuracy of clinical information (8)(12).

Although numerous studies have demonstrated the effectiveness of SBAR in improving the quality of clinical communication, most of these studies were conducted in developed countries with relatively established healthcare systems (4)(5). Research that comprehensively evaluates the implementation of SBAR in the context of national hospitals in developing countries, particularly using an integrated intervention approach (training, simulation, and mentoring), remains very limited (13). This study aimed to analyze the effectiveness of implementing the SBAR handover method by comparing nurses' knowledge and skills after the handover with the SBAR method implemented in an internal medicine unit as an effort to improve the quality of nursing care in that ward.

Methods

This study used a descriptive observational design. The sample in this study were 20 nurses drawn from the entire population. The study was conducted in the internal medicine inpatient ward of Guido Valadares National Hospital in Dili, Timor-Leste. Nurse performance in this study was assessed by nurses' knowledge of the SBAR method of handover and nursing skills in implementation out the SBAR method of handover. Assessment of nurses' knowledge and nursing skills in implementation out the SBAR method of handover was carried out before and after the SBAR method of handover was implemented in the ward. Before the implementation of the SBAR method of handover in the ward, researchers provided briefings and training on the SBAR method of handover to nurses. Knowledge data were collected using a questionnaire, while nursing skills were assessed by observing skill, Clinical Communication Practices during the handover activity and SBAR documentation using a checklist instrument. Data analysis was conducted using a comparative descriptive method to assess changes before and after the intervention.

Results

The results of the analysis indicate improvements in knowledge scores, the implementation of structured handover, and nurses' clinical communication practices. Changes were also observed in the clarity of communication, the completeness of handover information, and the consistency of SBAR method use. The details of these analysis results are presented in the following table.

Table 1. Nurses' knowledge scores before and after, the SBAR method of handover was implemented.

Variable	Pre-test (Mean)	Post-test (Mean)	Difference	% Improvement
Nurses' Knowledge	56.4	84.7	+28.3	50.2%

Based on the table above, the implementation of the SBAR method showed a substantial increase in nurses' knowledge levels. The average knowledge score increased from 56.4 (pre-test) to 84.7 (post-test), representing an increase of 28.3 points ($\pm 50.2\%$).

Table 2. nursing skills scores before and after, the SBAR method of handover was Implemented

Indicator	Before (%)	After (%)	Changes
Nursing skills	30%	85%	+55%

Based on the results above, the proportion of nurses able to skill a structured handover increased from 30% before the intervention to 85% after the intervention. This indicates a significant increase in compliance with the use of the SBAR format in clinical practice.

Discussion

The results of this study indicate that the application of the SBAR method significantly improves nursing skills (55%), especially in carrying out clinical communication and nursing handover practices. The increased clarity, completeness, and consistency of communication reflect improvements in the “process” component of Donabedian’s model of healthcare quality, which directly contributes to improved outcomes in the form of patient safety and continuity of care. These findings align with the global patient safety framework, which emphasizes that effective communication is a key factor in preventing clinical errors (12)(14). The SBAR method is an effective clinical communication to increase the effectiveness of the implementation of handover (17). Implementation of patient handover in the inpatient ward at the hospital is supervised by the head of the ward, nurse knowledge, nurse commitment, communication, and organizational culture(18)

Empirically, the findings of this study are consistent with various international studies showing that the use of SBAR improves the quality of handoffs and reduces miscommunication. SBAR enhances the completeness of clinical information and coordination among healthcare professionals (8). Structured communication contributes to improved patient safety and more efficient clinical decision-making (15). The implementation of SBAR improves compliance with communication standards and enhances the continuity of nursing care (6)(7). With effective communication, the quality of nursing care for patients will automatically increase (19).The SBAR method is not only used for nurse handovers during shift changes, but also for patient transfers from the emergency unit to inpatient care. However, the results of this narrative review indicate that the implementation of handovers using the SBAR communication method in urgent situations has not been optimal (20)

However, some studies indicate that the implementation of SBAR does not always yield significant results unless it is supported by ongoing training and adequate supervision. The effectiveness of SBAR is greatly influenced by organizational factors, including safety culture and managerial support (9). This difference may explain why, in this study, interventions based on training, simulation, and mentoring produced a more significant impact than partial implementation.

The main contribution of this study lies in providing empirical evidence regarding the effectiveness of SBAR implementation in the context of national hospitals in developing countries, particularly in Timor-Leste. This study expands the literature, which was previously dominated by contexts in developed countries, by demonstrating that SBAR remains effective even under resource-constrained conditions. Additionally, this study offers an integrated intervention-based implementation model that can be replicated in various similar healthcare settings (6)(7). The results of the study showed that through socialization and roleplay, nurses' knowledge will automatically increase (21).The results of this study showed that there was an increase in nurses' knowledge by 50.2% after the handover method activity with the SBAR communication approach was implemented in the internal medicine unit. The average nurse's knowledge about handover with the SBAR communication method after socialization about SBAR communication was 56.4, increasing to 84.7 after roleplay.

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Conclusions and Recommendations

The implementation of the handover method with SBAR communication in the Internal Medicine Unit at Guido Valadares National Hospital in Dili can improve nurses' performance in handovers. The main findings showed an increase in nurses' knowledge (50.2%), and nursing skills in handovers with SBAR communication by 55%. Scientifically, this study makes an important contribution by providing empirical evidence from the context of a national hospital in a developing country that the SBAR method can be implemented effectively through an integrated approach (training, simulation, and mentoring). Therefore, it is recommended that hospitals integrate SBAR into handover standard operating procedures (SOPs) and ensure ongoing training and supervision to ensure consistency and sustainability of its implementation.

Ethical Consideration and Competing Interest

The patient involved in this case study signed an informed consent form upon registration, and the researcher strictly maintains patient privacy. There were no conflicts of interest during the course of this case study or during the publication of this article.

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