

ANALYSIS OF THE EFFECT OF SBAR COMMUNICATION ON IMPROVING PATIENT SAFETY AT MITRA SEJATI HOSPITAL MEDAN IN 2025

Muchamad Andi Wibowo¹, Ermi Girsang², Sri Lestari Ramadhani Nasution³

¹ Magister Student of Magister Public Health, Faculty of Medicine, Dentistry and Health Sciences, University of Prima Indonesia, 20118, Indonesia

^{2,3} Magister Public Health, Faculty of Medicine, Dentistry, and Health Sciences, University of Prima Indonesia, 20118, Indonesia

*E-mail : much.andi.wibowo@gmail.com

ABSTRACT

Patient safety is a paramount priority in healthcare, where effective communication among health professionals is a crucial factor. Structured communication systems like SBAR (Situation-Background-Assessment-Recommendation) have proven to be vital in optimizing clinical communication effectiveness, which directly impacts the enhancement of patient safety. This quantitative study was designed to evaluate the influence of SBAR communication training on improving patient safety in the Mitra Sejati Hospital Medan. Utilizing a quasi-experimental (one-group pre-test post-test) design, with a sample size of 52 medical personnel (nurses and midwives). Pre-test and post-test data collection was carried out through direct observation with a questionnaire instrument, with a comprehensive SBAR communication technique training intervention given before the post-test. Statistical analysis using a paired sample t-test revealed a significant increase in the average communication score of medical personnel (2.52; $p < 0.001$) post-intervention. The findings of this study conclusively demonstrate that SBAR communication training is effective in improving communication skills among medical personnel, which in turn is expected to directly contribute to a reduction in communication errors and an overall enhancement of patient safety. Based on these findings, it is recommended that SBAR implementation be adopted as a continuous communication standard in hospital clinical practice.

Keywords: SBAR; Patient Safety; Communication Training; Nurse; Midwife

INTRODUCTION

Patient safety is a global concern in healthcare, with communication failures widely recognized as a leading cause of preventable medical errors. In 2016, the first Global Ministerial Summit on Patient Safety was held in the United Kingdom to advocate for systemic improvements and policies focused on patient safety. The World Health Organization (WHO) subsequently launched the first World Patient Safety Day on September 17, 2019, with the aim of uniting healthcare leaders worldwide to advance safety initiatives. According to the Global State of Patient Safety report (2019), approximately 134 million adverse events and 2.6 million deaths occur annually due to unsafe care, with 60% of these deaths attributed to poor-quality communication. In addition, 15% of hospital expenditures are allocated to managing complications arising from inadequate care (Institute of Global Health Innovation, 2022)

To address this issue, structured communication tools such as SBAR (Situation-Background-Assessment-Recommendation) have been developed and promoted by international institutions including the WHO, Joint Commission International (JCI), and the Institute for Healthcare Improvement (IHI). Originally used by the U.S. military, SBAR has been adapted to healthcare to standardize communication and reduce ambiguity. In Indonesia, the use of SBAR has been formally integrated into the national accreditation standards for hospitals through the Ministry of Health Decree No. HK.01.07/MENKES/1596/2024 (Menteri Kesehatan Republik Indonesia, 2024).

Preliminary observations at Mitra Sejati Hospital Medan revealed that although most healthcare professionals were familiar with SBAR, many faced challenges in its implementation due to a lack of training, time constraints, resistance from colleagues, and difficulty in compiling patient information. A survey of 154 staff confirmed these barriers and indicated a need for structured, institutionally supported SBAR training. Given the global emphasis on improving patient safety through structured communication and the local need identified in the preliminary survey, this study aims to analyze the impact of SBAR communication training on healthcare professionals' communication effectiveness and the improvement of patient safety at Mitra Sejati Hospital. Using a one-group pre-test and post-test quasi-experimental design, the study assessed changes in communication practices following the intervention and the effect of improving patient safety at Mitra Sejati Hospital.

METHODS

This study employed a quantitative, quasi-experimental design using a one-group pre-test post-test approach to analysis the effectiveness of SBAR communication training on the communication abilities of healthcare professionals. This design was chosen as it enables the researcher to measure changes in participants' knowledge or behaviour before and after the intervention within the same group, thus offering insight into the direct impact of the training without requiring a control group (Syamsul Ishak, 2020)

The study was conducted at Mitra Sejati Hospital Medan on May 2025. A total of 52 healthcare professionals (nurses and midwives) working in inpatient units were selected. Participants met

inclusion criteria such as active clinical duty for at least 6 months, consent to participate, and have a history of joint SBAR training. Data were collected using a structured observation-based questionnaire developed according to the SBAR framework. The questionnaire assessed participants' communication performance across four domains: situation identification, background delivery, clinical assessment, and recommendation. This instrument has been developed and used in previous studies by (Umi Hijadah, 2020)

The intervention consisted of a structured SBAR communication training programme delivered in one session. The training included theoretical instruction, interactive discussions, and role-playing simulations to reinforce SBAR concepts.

A paired sample t-test was used to compare pre-test and post-test scores. Statistical significance was set at $p < 0.05$. Effect size was calculated using Cohen's d to assess the magnitude of the training effect. These methods were selected to ensure the reliability and reproducibility of the findings while capturing the practical impact of SBAR communication training in a real clinical setting (Syamsul Ishak, 2020).

RESULTS

The study at Mitra Sejati Hospital in Medan demonstrated that SBAR communication training is effective in improving patient safety. Data from 52 respondents were normally distributed (Shapiro-Wilk test, $p = 0.096$). A paired t-test showed a mean score increase of 2.52 points, with a p-value of 0.000 (< 0.05), indicating a significant impact. The effectiveness of the training was further supported by a Cohen's d value greater than 0.8, indicating a substantial improvement in the communication techniques of medical staff.

Reporting Research Results

Table 1.1 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Skor_Pre	20,1154	52	1,46400	0,20302
	Skor_Post	22,6346	52	1,23715	0,17156

The results of the data analysis from the 52 participants above show that the average pre-test score was 20.12, and the post-test score was 22.64, indicating an increase of 2.52 points after the intervention. This improvement indicates that the implementation of the SBAR method is highly effective in enhancing communication within the hospital environment. Effective communication can improve hospital services and reduce errors in medical decision-making, ultimately leading to enhanced patient safety.

Table 1.2 Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Skor_Pre - Skor_Post	-2,51923	1,86285	0,25833	-3,03785	-2,00061	-9,752	51	0,000

The results of the paired t-test in the table above show a p-value of 0.000, which is less than the significance value of 0.05, indicating that the improvement in communication was not coincidental but was caused by the intervention.

Tabel 1.3 Paired Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Pair 1	Skor_Pre - Skor_Post	Cohen's d	1,86285	-1,352	-0,971
		Hedges' correction	1,87669	-1,342	-0,964

The table of Cohen's d test and Hedges' correction test data above shows that the average is above 0.8. These values indicate a large and highly significant effect on changes in healthcare communication techniques following the implementation of SBAR. The results not only demonstrate statistical significance but also indicate a strong and reliable impact. Overall, these findings suggest that SBAR communication is a highly effective method for improving communication among healthcare professionals and enhancing patient safety in hospitals.

DISCUSSION

This study aimed to assess whether SBAR communication training significantly improves the communication effectiveness of healthcare professionals in inpatient settings. The findings strongly support this hypothesis, as indicated by a statistically significant increase in communication scores following the training intervention. These results reaffirm the importance of implementing structured communication strategies, particularly SBAR, in hospital environments to enhance patient safety. The training contributed to a mean score increase of 2.52 points, demonstrating a substantial improvement in communication performance among participants.

The results of this study reinforce the findings of a previous study conducted by (Elvi zuhriyatul wachidah et al., 2022) that effective communication can improve hospital service quality and increase patient satisfaction, which in turn impacts healthcare worker loyalty. In line with (PRADANA & SETYAWAN, 2024), who stated that effective communication using the SBAR method can reduce medical errors and increase patient trust. The simple, easy-to-remember, and easy-to-implement SBAR communication method facilitates its implementation by healthcare workers in hospitals (DAMAYANTI & DHAMANTI, 2024). These findings reinforce the results of this study, indicating that the SBAR method is highly suitable for developing effective communication among healthcare professionals.

The SBAR method is not only worth developing by hospitals, but research results showing an average increase of 2.52 points and p 0,000 (<0,05) in the knowledge and communication skills

of medical personnel after training demonstrate its effectiveness. These results support the research conducted by (Ghonem & El-Husany, 2023) that the SBAR method in handover reporting has a significant effect in improving knowledge, practice, and perception of handover communication. Additionally, research conducted by (Yun et al., 2023) also shows that SBAR training is proven effective in developing nurses' handover reporting skills in hospitals. Research conducted by (Hendra et al., 2021) supports that SBAR training can improve nurses' knowledge and attitudes, indicating that training is highly important for healthcare professionals. In line with research conducted (sabrina tria damayati, 2021), the SBAR communication method impacts patient safety. The components influencing the implementation of SBAR communication are minimizing miscommunication and misunderstandings among healthcare workers, thereby enhancing patient safety.

Although the findings were encouraging, this study had several limitations. The lack of a control group restricts the ability to make causal inferences. The study was conducted at a single hospital with a relatively small sample size, which may affect the generalisability of the results. Additionally, the post-test was administered shortly after the training, limiting insights into the long-term retention of communication skills. There is also the possibility of a Hawthorne effect, where participants may have altered their behaviour due to awareness of being observed. Future research should consider adopting a mixed-methods approach, incorporating control groups and conducting follow-up assessments over a longer period to evaluate the sustainability of training outcomes. Exploring the impact of SBAR training across various healthcare settings and staff categories could provide broader insights into its effectiveness and adaptability.

Overall, the study contributes valuable evidence supporting the implementation of SBAR communication training as a strategic intervention to improve clinical communication and patient safety. While further research is needed, the findings underscore the potential of SBAR to be embedded as a standard communication practice in healthcare institutions.

CONCLUSION

The results of this study indicate and strengthen previous studies that the SBAR communication method is effective in improving the quality of medical communication personnel, including in the aspects of interaction, collaboration, and coordination. SBAR has also been shown to improve the clarity and accuracy of information conveyed between health workers, as well as contributing to improving the quality of service in general. Improving effective communication plays an important role in reducing errors in handovers between medical personnel, which will improve patient safety. Therefore, the SBAR method is worthy of being adopted as part of the standard operating procedure (SOP) for communication in health care facilities. Researchers hope that further research to deepen the SBAR method can be carried out to improve knowledge and improve the effectiveness of communication between medical personnel, which will improve patient safety.

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