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Effectiveness of Situation, Background, Assessment, Recommendation (SBAR) Communication on Nursing Knowledge and Attitude at a Regional Hospital

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Abstract

The high prevalence of interprofessional communication errors during the handover process has been identified as a primary determinant of preventable patient harm. Therefore, the urgent need for evaluation and implementation of the SBAR (Situation, Background, Assessment, Recommendation) method is highly crucial to mitigate these clinical risks. This study aims to identify the effectiveness of SBAR communication in improving the knowledge and attitudes of nurses in the Inpatient Units of the Sultan Iskandar Muda Regional General Hospital, Nagan Raya Regency. This quantitative research employed a quasi-experimental one-group pre-posttest design, involving 64 nurses selected through purposive sampling. Data were collected using a structured questionnaire that was declared valid and reliable (Cronbach's alpha 0.956). The Wilcoxon Signed Rank Test results showed a significant increase in the knowledge of nurses post-training with a value (Z= -4,852; p= 0,001) and attitudes (Z= -4,288; p= 0,001). Specifically, The findings of this study demonstrate that SBAR communication training is significantly effective in enhancing knowledge capacity while concurrently improving nurses' attitudes. SBAR method training is highly effective in improving the cognitive and affective competencies of nurses. Hospital management is advised to implement this training periodically to strengthen the patient safety culture.

Keywords: SBAR Training, Effective Communication, Knowledge, Patient Safety

1. Introduction

Ensuring patient safety is a critical global challenge that directly reflects the quality of clinical care provided within hospital environments [1]. In these complex healthcare settings, nursing professionals comprise the largest segment of the workforce, delivering continuous, round-the-clock direct care to patients [2]. For this reason, maintaining precise and flawless communication among nursing staff during shift handovers or clinical transitions is of utmost importance. Suboptimal communication practices are widely acknowledged as a primary catalyst for medical errors, preventable patient harm, and adverse clinical outcomes [3, 4].

Flawed communication often occurs when critical patient details are transmitted in an unstructured, disorganized, or highly subjective manner. To address these systemic communication gaps, the World Health Organization (WHO) along with multiple international healthcare accreditation bodies strongly endorse the adoption of standardized communication protocols. The Situation, Background, Assessment, Recommendation (SBAR) framework has become a premier global tool specifically designed to ensure clear, brief, and structured information exchange during nurse handshifts or urgent patient status updates [5, 6].

The successful integration of the SBAR method depends heavily on the internal cognitive and affective characteristics of the frontline nurses, particularly their professional knowledge and personal attitudes. Theoretical knowledge serves as the cognitive foundation for understanding the mechanics of standardized guidelines, whereas a supportive attitude provides the psychological willingness to routinely implement these practices under high-pressure clinical scenarios [7]. Existing literature indicates that interactive and well-designed educational interventions can successfully transform theoretical understanding into actual clinical behavior [8, 9]. Nevertheless, despite the proven global benefits of SBAR, its adoption and readiness levels frequently vary across public regional hospitals in developing nations, typically due to differing levels of institutional support,

clinical supervision, and baseline training opportunities [4, 10, 11].

Sultan Iskandar Muda Regional General Hospital (RSUD) in Nagan Raya Regency serves as a crucial public health facility that relies heavily on its nursing workforce to maintain patient safety thresholds. Initial assessments and field observations at this hospital indicated that clinical handovers among nurses still lacked a unified, structured communication protocol, which occasionally caused fragmented or incomplete information transfer. While prior studies have heavily explored the general institutional advantages of SBAR, there is limited empirical research focusing specifically on how targeted, interactive SBAR training concurrently reshapes both the cognitive (knowledge) and affective (attitude) dimensions of executing nurses within a regional public hospital framework. Consequently, this study was undertaken to evaluate the true impact of structured SBAR communication training on modifying the knowledge and attitudes of executing nurses at RSUD Sultan Iskandar Muda Nagan Raya.

2. Methods

This quantitative study utilized a quasi-experimental, one-group pretest-posttest design at the Inpatient Wards of RSUD Sultan Iskandar Muda, Nagan Raya, from October 27, 2025 to January 27, 2026. A sample of 64 executing nurses was selected via purposive sampling based on professional inclusion criteria, while those on extended leave or with incomplete evaluations were excluded. The experimental intervention involved a structured SBAR clinical handover training program delivered through lectures, multimedia demonstrations, and supervised role-plays. Data were gathered using a validated two-part questionnaire capturing demographic profiles, a 20 item multiple choice SBAR knowledge test, and a 25 item Likert scale for communication attitudes. Psychometric testing of the instrument demonstrated a perfect Content Validity Index (CVI=1.00) and an exceptionally high reliability coefficient (Cronbach's alpha=0.956). Following a Shapiro-Wilk normality assessment which confirmed a non-normal distribution $p<0.05$, the non-parametric Wilcoxon Signed-Rank Test was performed alongside descriptive statistics to evaluate significance changes between pre-test and post-test scores at a threshold of $p < 0.05$.

3. Results

Wilcoxon Signed-Rank Test results demonstrate a highly significant improvement in both nursing knowledge and attitudes after the SBAR training (N = 64).For the cognitive domain, the nurses' mean knowledge score escalated significantly from 93.17±8.642 at pre-test to 98.17±2.882 at post-test, with the median value shifting from 96.00 to 100.00 ($Z = -4.852$, $p = 0.001$$). Simultaneously, the affective domain showed a positive progression; the mean attitude score rose from 65.64±6.183 to 68.78±5.141, while the median score advanced from 65.50 to 70.00 ($Z = -4.288$, $p = 0.001$). In conclusion, because both *p*-values are less than 0.05, the structured SBAR training program is statistically proven to be highly effective in enhancing both the operational knowledge and professional attitudes of the nursing staff.

Table: The effect of Effective SBAR Communication on Nursing'Knowledge and Attitudes: A Pre-test and Post-test Comparison (N=64)

Assesment test	mean ±SD	Median (IQR)	Wilcoxon Signed-Rank Test	
			Z	*p*
Nurses' Knowledge (Pre-test)	93,17±8,642	96,00 (8)	-4,852	0,001
Nurse'attitudes (post test)	98,17±2,882	100,00 (4)		
Nurse'attitudes (pre-test)	65,64±6,183	65,50 (11)	-4,288	0,001
Nurse'attitudes (post test)	68,78±5,141	70,00 (9)		

4. Discussion

The implementation of effective Situation-Background-Assessment-Recommendation (SBAR) communication training significantly optimizes both cognitive and behavioral domains among nursing staff. The descriptive analysis demonstrated a clear upward shift in mean knowledge scores from 93.17 ± 8.64 at pre-test to 98.17 ± 2.88 at post-test, with tighter data homogeneity following the intervention. Statistically, the Wilcoxon signed-rank test confirmed this improvement was highly significant ($p<0.001$, Mean Rank=16.77, Sum of Ranks=520.00). This drastic post-test variance reduction indicates that structured SBAR guidelines successfully align and standardize nurses' theoretical understanding, minimizing individual disparities in clinical comprehension. This finding is heavily supported by Bukohwo (2023), who posited that standardized communication frameworks act as cognitive scaffolding, significantly lowering clinical ambiguity and boosting knowledge retention among frontline healthcare workers. Furthermore, continuous educational training serves as a primary catalyst in reinforcing critical safety concepts during clinical handovers [12, 13].

In addition to cognitive gains, a significant positive shift was observed in nurses' attitudes post-intervention, with mean scores advancing from 65.64 ± 6.18 to 68.78 ± 5.14 ($p < 0.001$, Mean Rank = 25.49, Sum of Ranks = 968.50). This behavioral evolution implies that structured training does not merely convey factual data, but actively reshapes professional perception and collaborative willingness. According to the Theory of Planned Behavior, an increase in targeted knowledge directly fosters a more constructive attitude toward performing that specific behavior [14]. When nurses acquire structured tools like SBAR, their clinical confidence increases, directly translating into a more proactive and favorable attitude toward interprofessional communication. Empirically, this aligns with a recent multi-center study by Shahmoradi *et al*. (2024), which highlighted that SBAR training dismantles traditional hierarchy barriers and cultivates a supportive safety culture, driving nurses to adopt a more collaborative mindset during critical patient transfers [15].

Conversely, the data suggests that transforming deep-rooted behavioral attitudes requires a more continuous reinforcement strategy compared to rapid knowledge acquisition, as seen in the slightly narrower margin of mean improvement in the attitude domain. This subtle discrepancy emphasizes that while clinical knowledge can be swiftly

elevated via structured lectures, attitude modification is a longitudinal process heavily influenced by organizational culture and active peer feedback [16]. Therefore, the clinical implication of this study underscores that nursing management at RSUD Sultan Iskandar Muda Nagan Raya should not treat SBAR workshops as a single, isolated event. To translate these heightened post-test means into long-term patient safety outcomes, institutional leadership must embed SBAR compliance into daily bedside rounds, provide periodicrefresher audits, and foster an environment that actively.rewards transparent, structured communication [17].

5. Conclusions

The structured SBAR training successfully escalated nurses' mean knowledge scores from 93.17 to 98.17 ($Z = -4.852$, $p = 0.001$) and mean attitude scores from 65.64 to 68.78 ($Z = -4.288$, $p = 0.001$). These metrics statistically prove that the intervention is highly effective in concurrently optimizing both the cognitive and affective competencies of the nursing staff.

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