

# Instruction Program for Nurses Knowledge about Applying the Communication Strategies (SBAR) in Critical Care Units

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## Abstract

**Background:** Effective communication can improve patient care and safety by ensuring complete and correct information transmission and preventing misrepresentation and misinterpretation of patient-centered data. Situation, Background, Assessment and Recommendation (SBAR) is the one of the most effective communication strategies that used in transmitted the clinical information between the health professionals.

**Objectives of the Study:** Present study aims to determine the effectiveness of Instruction program on nurses' knowledge regarding communication strategy (SBAR) and find out the association between the effectiveness of instruction program and nurses' level of education, year of experiences, year of experiences in critical units and training course.

**Methodology:** A pre-experimental study design was carry out in the critical care units of Imam Al-Hussein Medical City at Holy Karbala City between the periods 17<sup>th</sup> of September 2020 to 25<sup>th</sup> of May 2021. A non-probability (purposive) sample of (25) nurses were selected based on the study criteria.

**Results:** The results of the study indicated that there were high statistically differences between the pre and post-test of the instruction program related to the communication strategy. The study found a high statistically significant relationship between the effectiveness of the instruction program related to the communication strategy, educational level, training courses for nursing documentation, years of experience in nursing, and years of experience for nurses in the critical care units.

**Conclusion:** The study concluded that the instruction program had a positive effect on nurses' knowledge concerning communication strategy (SBAR).

**Recommendations:** Testing the current program on a wide group of health-care providers in hospitals.

**Key Words:** *Instruction, Communication Strategy (SBAR), Nurses Knowledge, Critical Care Units.*

## Introduction

One of the effective communication strategies in nursing services is the SBAR (Situation, Background, Assessment, and Recommendation). SBAR is an easy framework for communicating critical information between health professionals<sup>[1]</sup>. In hospitals, structured communication techniques have been widely used to improve communication between healthcare staff.

These techniques have been demonstrated to improve patient safety, prevent unexpected deaths, and reduce communication-related mishaps<sup>[2]</sup>.

Communication strategy (SBAR) situational awareness has been demonstrate as an inner element in the method for providing patient concern and basic leadership that assists health care practitioners, particularly in critical care settings<sup>[3]</sup>. Communication

failure may trigger a delay in the rapid response team's activation, which has related to a rise in in-hospital deaths. The number of SBAR components in the vital message has a direct relationship with in-hospital survival. As a result, nurses' education on the use of the SBAR tool for transmitting critical information to physicians will increase situation sensitivity and likely improve patient outcomes [4].

Intensive care Nurses play an effective role in patient protection in their workplace. With the SBAR situational awareness approach, they should be able to recognize and interpret patient safety events using procedures, work as a team, learn from mistakes, and recognize behaviors and guidelines on how to avoid communication error incidents [5].

The technique of SBAR has helped nurses to have a focused and easy communication during transition of care during handover. Importance and relevance of capturing information need to be reinforce. An audit to look for reduced number of incidents related to communication failures is essential for long-term evaluation of patient outcomes. Use of standardized SBAR in nursing practice for bedside shift handover will improve communication between nurses and thus ensure enhance and improve patients health conditions [6].

Nurses often take more of a narrative and descriptive approach to explain a situation, while physicians usually want to hear only main aspects of a situation. The SBAR technique closes the gap between these two approaches allowing communicators to understand each other better. It is specially use for communication between a physician and a nurse when there is a change in patient condition or between a nurse and nurse during patients shift to a new department or during shift change. It is a technique used to deliver quality patient care [7].

## Methodology

**Design and setting of the study:** A pre-experimental study design was carried out in the

critical care units at Imam Al-Hussein Medical City of Karbala Holy City from the period of 17<sup>th</sup> of September 2020 to 25<sup>th</sup> of May 2021, in order to find out the effectiveness of instruction program on nurses' knowledge regarding communication strategy (SBAR).

**Sample of the study:** a purposive sample was consists of (25) nurses was selected according to study criteria and after obtains verbal and written consent permission from them.

**The study instrument:** First part, concerned with the nurses' demographic data. Second part, concerned with nurses' knowledge regarding communication strategy (SBAR) includes (27) items.

**Statistical Analysis:** The IBM Statistical Package of Social Sciences (SPSS) Version 22 was used to analyze the results. Both descriptive statistical analysis and inferential statistical analysis approaches were used in order to investigate or predicts the relationships between variables.

## Results and Discussion

### 1. Discussion demographic information (table 1):-

The characteristics of the participants in the present study was high percentage of them 52% at age group 18-28 years old, (Achrekar et al. 2016) including in their study 80% nurses at age 21-30 years old, 60% of the present study was females [8]. (Nagammal et al. 2016) their sample was high percentage of females which of 87.3% [9]. Regarding the years of experience in nursing, the characteristics of the present study indicated that the majority of nurses have experience from (1-5 years) with percentage 52% and according to years of experience in critical care units, the majority of nurses have experience from (1-5 years) with percentage 76%. (Sankpal et al. 2020) their study sample who included in their study have years of experience in nursing within (1-5 years) which of 83.9% of nurses [10]. High percentage of the study sample of present study graduated from medical

nursing institute, (Coolen et al. 2020) reported in their study that the diploma degree have high percentage in their study High percentage of the study sample not included in the nursing documentation training courses which of 72%<sup>[11]</sup>. (Müller et al. 2018) stated in their study that the most of the participants not having courses of nursing documentation<sup>[12]</sup>.

## **2. Discussion overall nurses knowledge and difference regarding communication strategy (SBAR) at the pre-test and post-test period of the program( table 2,3):-**

The effectiveness of program was clear improved the practical knowledge of nurses regarding communication strategy which of their level was moderate at pretest then improved to high level and the result revealed that were high statistically significant differences between the pre-test and the post-test at ( $p < 0.05$ ). (Dalky et al. 2020) conducted a quasi-experimental approach with a pretest–posttest was adopted. 71 ICU nurses took part in the study as a convenience sample. SBAR effectiveness was examine using the 43-item ICU physician-nurse questionnaire, which included subscales for general relationship and communication, teamwork and leadership, and job satisfaction. The finding indicate that there was a significant improvement in posttest knowledge scores<sup>[13]</sup>. (Jiang et al. 2020) stated their study that conduct in hospital in Guangzhou research subjects were 100 clinical nurses. To explore and assess the clinical nurses' understanding of SBAR's blood glucose management, data were obtain via a questionnaire survey. The finding shows that SBAR strategy in addition to improving the communication between medical staff; it could also optimize the knowledge structure of nurses and make quick and

accurate judgment of problems<sup>[14]</sup>. (Hadi et al. 2021) conduct a cross-sectional study was adopted in the investigation. Purposive sampling was used to choose the 102 nurses who took part in this study. A questionnaire was employed in the study to assess the SBAR's perceptions, knowledge, attitudes, motivation, and application. The results showed that there was a significant relationship between perception, knowledge, attitude, motivation, and the application of the SBAR method<sup>[15]</sup>.

### 3. Discussion Association between the effectiveness of the interventional program and Demographic information of study ( table 3):-

The result of present study indicates that there were highly significant association between the effectiveness of interventional program on nurses' knowledge and years of nursing experience, years of experience in critical care units, levels of education and nursing documentation training courses. (Jeong & Eun, 2020) conduct a single-blind randomized control pretest–posttest approach use 54 nursing students in their third semester at a Korean university were chosen (SBAR group 26, handoff group 28). The finding stated there was no statistically significant difference between the SBAR group and handoff group knowledge with age groups, gender of the participants. However, there is significant association between nurses' knowledge and levels of education and years of experience in nursing<sup>[16]</sup>. In the end that led us to accept the alternative hypothesis  $H_1$ : The program of communication strategy (SBAR) is improve the nurses' knowledge, and reject the null hypothesis  $H_0$ : The program of communication strategy (SBAR) is not effect on nurses' knowledge.

**Table (1): Distribution of the participants according to their demographic information (n=25).**

Demographic information		F.	%
Variables	Categories		
Age Groups / Years	18-28	13	52.0
	29-38	9	36.0
	39-48	3	12.0
	<b><math>\bar{x} \pm S.D.</math></b>	29.6±6.2	
Gender	Female	15	60.0
	Male	10	40.0
Years of nursing experience	1-5 years	13	52.0
	6-10 years	4	16.0
	11-15 years	3	12.0
	16-20 years	5	20.0
Years of experience in critical care units	1-5 years	19	76.0
	6-10 years	6	24.0
Levels of education	High school nursing	6	24.0
	Nursing Institute	11	44.0
	College of Nursing	7	28.0
	Postgraduate certificates	1	4.0
Work shift	Morning	19	76.0
	Evening	6	24.0
	Total	25	100.0
Nursing documentation training courses	Yes	7	28.0
	No	18	72.0
	Total	25	100.0

F = Frequency; % = Percentage.

**Table (2): Comparison among overall nurses knowledge regarding communication strategy (SBAR) at the pre-test and post-test period of the program.**

Program periods	Rating	Frequency	Percent	Cumulative Percent
Pre-test	Low	4	16.0	16.0
	Moderate	14	56.0	72.0
	High	7	28.0	100.0
	Total	25	100.0	
Post-test I	High	25	100.0	100.0
	Total	25	100.0	

Low =Low level of knowledge (R.S. <66.6 ); Moderate = Moderate level of knowledge (R.S.=66.6-83.3); High = High level of knowledge (R.S>=83.4)

**Table (3): Paired sample t-test of the difference in nurses’ knowledge regarding communication strategy (SBAR) at the pre-test and post-test period of the program.**

Tests	M.S	S.D.	Dependent t Test statistics			
			T-test	df.	p-value	Sig.
Pre-test	1.5	0.24	-9.68	24	0.000	HS
Post-test	1.8	0.08				

M.S = Mean of score; S.D. = Standard Deviation; df. =Degree of Freedom; P-value = Probability value; HS =Highly Significant (p-value ≤ 0.05).

**Table (4): Association between the effectiveness of the interventional program on nurses’ knowledge, age groups, gender, years of nursing experience, years of experience in critical care units, levels of education, work shift and nursing documentation training courses.**

Demographic data	Comparative patterns	df.	F	Sig.
Age Groups	Between Groups	2	14.13	0.06 (NS)
	Within Groups	22		
Gender	Between Groups	1	2.600	0.79 (NS)
	Within Groups	23		
Years of nursing experience	Between Groups	3	6.402	0.03 (HS)
	Within Groups	21		

**Cont... Table (4): Association between the effectiveness of the interventional program on nurses’ knowledge, age groups, gender, years of nursing experience, years of experience in critical care units, levels of education, work shift and nursing documentation training courses.**

Years of experience in critical care units	Between Groups	1	8.132	0.02 (HS)
	Within Groups	23		
Levels of education	Between Groups	3	5.775	0.02 (HS)
	Within Groups	21		
Work shift	Between Groups	1	2.755	0.11 (NS)
	Within Groups	23		
Nursing documentation Training courses	Between Groups	1	24.934	0.00 (HS)
	Within Groups	23		

df.=Degree of Freedom; F= F- statistics; Sig=Level of significance; S= significant at P< 0.05 to > 0.01; HS=Highly Significant; NS= Not Significant at P> 0.05.

### Conclusion and Recommendations

The study concluded that the instruction-nursing program had a positive impact on nurses’ knowledge concerning communication strategy (SBAR). The researcher is recommended; testing the current program on a wide group of health-care providers in hospitals. Use the SBAR formula in all hospital units. All nurses should attend an SBAR training session. Incorporating the SBAR into nursing education at all levels and expanded research to include more hospitals.

**Ethical Clearance:** The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

**Conflict of Interest:** The authors declare that they have no conflict of interest.

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