The Application of The Situation, Background, Assessment, Recommendation (SBAR) Method in Nurse Handover Between Shifts in The Hospital

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Abstract

Introduction: One of the effective communication methods in nursing services is the SBAR (Situation, Background, Assessment, and Recommendation). SBAR is an easy framework for communicating important information between health professionals in the hospital. This study aimed to describe the application of the SBAR method in nurse handovers between shifts.
Methods: The research design used a cross-sectional approach. A total of 102 nurses involved in this study were selected by purposive sampling. The research instrument used a questionnaire to evaluate perceptions, knowledge, attitudes, motivation, and application of the SBAR. The bivariate statistical test used Chi-square and the multivariate test used Multiple Logistic Regression.
Results: The results showed that the p-value between the perception variables was ($0.025 < 0.05$), knowledge ($0.014 < 0.05$), attitude ($0.034 < 0.05$), and motivation ($0.037 < 0.05$). There was a significant relationship between perception, knowledge, attitude, motivation, and the application of the SBAR method.
Conclusion: The dominant factor in applying the SBAR method is the attitude variable. The application of this method may be tested by enhancing the capacity of nurses in the hospital.

Keywords

effective communication; nurse handover; SBAR

INTRODUCTION

One way to improve the quality of services is by communications of health services between professions and within the nursing profession (Ghiyasvandian et al., 2015). Communication that is used in realizing these services must be used effectively so that a systematic approach is needed to achieve the expected communication. Good communication is not only based on the nurse's physical appearance abilities, but also on education and experience (Lambrini & Loanna, 2014). The communication of various information regarding patient development between health professionals in the hospital is a fundamental component of patient care (Suhriana, 2012).

The communication method currently used is the Situation, Background, Assessment, and Recommendation (SBAR) method, a structured method and easy-to-remember framework for communicating important information that requires immediate attention

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and action, contributing to the improvement of effective management and improvement. It affords patient safety and reduced barriers to effective communication across hierarchies and staff levels by acting as memory prompts that encourage prior preparation for communication (Raymond & Harrison, 2014). According to KARS (2013), the nurse receives verbal instructions on the phone from the doctor using verbal communication with TBAK (write, read, confirm again) while the nurse reports the patient's condition to the doctor using verbal communication with SBAR (*situation, background, assessment, recommendation*).

According to Vardaman et al. (2012), the SBAR communication system can function as a tool to standardize communication between nurses and doctors. This journal shows that SBAR can assist in the development of schemes that allow nurses to make quick decisions. Communication using structured SBAR tools achieves critical thinking skills and saves time (NHS, 2012). Effective communication uses the SBAR technique as a communication engineering framework provided to communicate between health workers in conveying the patient's condition (Permanente, 2011). According to research results by Dingley et al. (2008) at Denver Health Medical Center, nurses' communication failure in performing operands between shifts was 30% due to direct communication failures, such as delayed communication, failed communication with all members of the nursing team, and unclear communication content. This causes communication goals not to be achieved.

The factors causing the Patient Safety Incident (PSI) according to Cahyono (2008) is a communication failure; ineffective communication will have an 80% impact causing malpractice, increasing operational costs, healing care costs, and hindering the process of providing nursing care. Cahyono (2008) reported that during 2005-2010 there were 126 cases of malpractice allegations against the hospital due to lack of good communication. According to The Joint Commission, nearly 60% of medical errors are caused by communication problems (Flicek, 2012). Research conducted by Wahyuni (2014) showed that SBAR communication training is effective in improving the quality of guard operands in the Wardah ward of PKU

Muhammadiyah Yogyakarta Hospital. Research by Nazri and Juhariah (2015) explains that the factors that hinder communication between nurses and doctors are such as weak communication structures, hierarchy, language, culture, gender, and differences in communication styles.

The implementation of SBAR communication at the Harapan Kita Cardiovascular Hospital began ahead of the implementation of the 2012 version of the National KARS Accreditation in 2015 and the JCI International Accreditation in 2016, training on effective communication for officers. KARS 2012 version SKP 2 and JCI IPSG 2 require the hospital to develop an effective, timely, accurate, complete, clear, and understandable way of communication by the recipient. This reduces errors and results in improved patient safety. In accordance with the standard Patient Safety Goals (SKP 2) -(KARS, 2018) Hospital Accreditation National Standards (SNARS) edition 1 of 2018: Hospitals establish regulations to carry out the process of increasing the effectiveness of verbal communication and/or telephone communication between professional caregivers (PPA). In Standard SKP 2.1, the hospital establishes regulations for the process of reporting the results of the critical diagnostic examination and in standard SKP 2.2 the hospital establishes and implements a "Handover" communication process.

Harapan Kita Cardiovascular hospital as a special type of national cardiovascular referral hospital was inaugurated on November 9th, 1985, and received the 2012 KARS National Accreditation certificate in 2015 with a complete level and has passed the 2016 JCI International Accreditation and passed KARS accreditation SNARS version with international level achievements. Initial interviews with several Unit Heads and leaders in Inpatients stated that the application of the SBAR method communication has not been optimal. Data on Patient Safety Indicators for Cardiovascular hospital 2018 Quarter IV 15% for PPA staff communication factors between units are less effective, and handover communication is less effective.

One of the communication methods currently used is the SBAR (*Situation, Background, Assessment, and Recommendation*) method a structured method and an easy-to-

remember framework for communicating important information that requires immediate attention and action. KARS and JCI require the hospital to develop an effective, timely, accurate, complete, clear, and understandable way of communication for the recipient. This reduces errors and results in improved patient safety. Observations made by researchers

Table 1. Distribution of Age, Gender, Years of Service, Education, and Competency Level

Variable		n	%
Age	> 45 Years	50	49.0
	24-45 Years	52	51.0
Gender	Male	17	16.7
	Women	85	83.3
Years of service	1-5 Years	53	52.0
	> 5 Years	49	48.0
Education	Diploma	47	46.1
	Nursing	55	53.9
Competency Level	Beginner	27	26.5
	Advanced Beginner	30	29.4
	Competent	23	22.5
	Proficient	21	20.6
	Expert	1	1.0

Table 2. Distribution based on perceptions, knowledge, attitudes, motivation, and application of the SBAR method

Variable		n	%
Perception	Good	58	56.9
	Not good	44	43.1
Knowledge	Good	59	57.8
	Not good	43	42.2
Attitude	Good	65	63.7
	Not good	37	36.3
Motivation	Good	63	61.8
	Not good	39	38.2
SBAR implementation	Good	62	60.8
	Not good	40	39.2

Table 3. The Relationship between Perceptions, Knowledge, Attitudes, and Motivation with the Application of the SBAR Method in Harapan Kita Cardiovascular Hospital 2019 (n = 102)

Variable	Application of the SBAR Method				Total		P-Value	ORP (95% CI)
	Good		Not good					
	n	%	n	%	n	%		
Perception								
Not good	21	47.7	23	52.3	44	100.0	0.025	2.641 (1.16–5.98)
Good	41	70.7	17	29.3	58	100.0		
Knowledge								
Not good	20	46.5	23	53.5	43	100.0	0.014	2.841 (1.24-6.46)
Good	42	71.2	17	28.8	59	100.0		
Attitude								
Not good	17	45.9	20	45.9	37	100.0	0.034	2.647 (1.156.0)
Good	45	69.2	20	30.8	65	100.0		
Motivation								
Not good	29	74.4	10	25.6	39	100.0	0.037	0.379 (0.15– 0.9)
Good	33	52.4	30	47.6	63	100.0		

Table 4. Final Modeling of Multivariate Analysis

Variable	P	B	Exp Value (B)
Perception	0.238	0.542	1.719
knowledge	0.045	0.919	2.508
Attitude	0.041	0.932	2.517

Table 5. Distribution of Independent and Independent Interaction Test

Variable	B	SE	Wald	*P-value*	Exp (B)	95% CI
Perception with Knowledge	1.625	0.939	2.993	0.084	5.080	0.806-32.026
Perception with Attitude	0.481	0.750	0.42	0.521	1.618	0.372-7.039
Motivation with Perception	-0.011	0.896	0.000	0.990	0.989	0.171-5.731
Knowledge with Attitude	1.721	0.930	3.424	0.064	5.592	0.903-34.267
Motivation with Attitude	-0.707	0.628	1.268	0.260	0.493	0.144-1.688
Motivation with Knowledge	-1.106	0.793	1.945	0.163	0.331	0.070-1.566

Table 6. Changes in the OR Value after the attitude variable was entered back into the modeling

Step	Variable	Old OR	New OR	OR change%
4	Perception	1.604	1.719	7.17
	Knowledge	2.659	2.508	5.68
	Attitude	2.693	2.517	6.54
	Motivation	0.355	-	-

were that all nurses in the average ward had received socialization and understood about effective communication with the SBAR method, but the implementation was not optimal and there were still several shortcomings that needed to be corrected. This study aims to describe the application of the SBAR method in nurse handovers between shifts at Harapan Kita cardiovascular hospital.

MATERIALS AND METHODS

This study used a cross-sectional design to determine the relationship between perceptions, knowledge, attitudes, and motivation of nurses with the dependent variable, namely the application of the SBAR method in inter-shift nurse handovers in adult inpatients at Harapan Kita Cardiovascular Hospital Jakarta. Using the total population in the adult inpatient room (average care) of 102 nurses. The study was held from March to July 2019.

The validity and reliability of the questionnaire were tested by 30 nurses in the pediatric center of Harapan Kita Cardiovascular Hospital April 20th-30th, 2019. The results of the instrument trial were valid and reliable. Data were analyzed by using the Chi-Square test and multiple logistic regression. This Chi-Square test is used to explain the relationship between confounding variables (age, gender, and years of service) and independent variables (perceptions, knowledge, attitudes, and motivation) of nurses with the implementation of the SBAR method in nurse handovers between shifts.

RESULTS

In the table 1, the average age of the respondents was in the age range of 24-45 years as many as 52 (51%) respondents, the majority of women were 85 people (83.3%), the majority of the working period was 1-5 years, as many as 53 people (52%), educated as Nursing as many as 55 people (59.9%) and the majority level of competence was at the Advanced Beginner level as many as 30 people (29.4%).

In the table 2, most of the respondents had a good perception. 58 people (56.9%), good knowledge was 59 people (57.8%), good attitudes were 65 people (63.7%), good motivation was 63 people (61.8%), and good application of the SBAR method as many as 62 people (60.8%).

The results of statistical tests (Table 3) showed that there was a significant relationship between perception and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, with a p-value of 0.025, which was

smaller than the alpha value (0.05) with (CI = 1.165-5.987) and the odds ratio (OR) value of 2.641. Nurses who have a good perception have 2.641 times the opportunity to improve the application of the SBAR method.

Respondents who had bad knowledge applied the SBAR method well accounted for 46.5%, while respondents with good knowledge applied the SBAR method well were 71.2%. It was concluded that there was a significant relationship between knowledge and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, p-value 0.014 (<0.05) with (CI = 1.248-6.467) and the OR value of 2.841, which means that nurses who have good knowledge have a 2.841 times chance to improve the application of the SBAR method. The results of statistical tests show that there is a significant relationship between attitudes and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, with a significant p-value of 0.034 (<0.05) with (CI = 1,150-6.095) and the OR value of 2.647, which means that the nurses who have good knowledge have 2,647 times the opportunity to improve the application of the SBAR method.

The results of the analysis showed that respondents who had bad motivation implemented the SBAR method well, 74.4%, while respondents with good attitudes applied the SBAR method well with 52.4%. From the results of statistical tests, it can be concluded that there is a significant relationship between motivation and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, with a p-value of 0.037 (<0.05) with (CI = 0.159-0.908) and an OR value of 0.379 means that nurses who having good motivation have a 0.379 times opportunity to increase the application of the SBAR method.

The analysis above shows that the results of bivariate selection that enter into the multivariate modeling are knowledge (p = 0.012), attitude (p = 0.018), perception (p = 0.019), motivation (p = 0.025).

The Relationship between Perception, Knowledge, Attitudes, and Motivation with the Application of the SBAR Method

The results of statistical tests showed that there was a significant relationship between perception and the application of the SBAR

method in Harapan Kita Cardiovascular Hospital, with a p-value of 0.025, which was smaller than the alpha value (0.05) with (CI = 1.165-5.987) and the odds ratio (OR) value of 2.641. Nurses who have a good perception have 2.641 times the opportunity to improve the application of the SBAR method.

Respondents who had bad knowledge applied the SBAR method well accounted for 46.5%, while respondents with good knowledge applied the SBAR method well were 71.2%. It was concluded that there was a significant relationship between knowledge and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, p-value 0.014 (<0.05) with (CI = 1.248-6.467) and the OR value of 2.841, which means that nurses who have good knowledge have a 2.841 times chance to improve the application of the SBAR method. The results of statistical tests show that there is a significant relationship between attitudes and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, with a significant p-value of 0.034 (<0.05) with (CI = 1,150-6.095) and the OR value of 2.647, which means that the nurses who have good knowledge have 2,647 times the opportunity to improve the application of the SBAR method.

The results of the analysis showed that respondents who had bad motivation implemented the SBAR method well, 74.4%, while respondents with good attitudes applied the SBAR method well with 52.4%. From the results of statistical tests, it can be concluded that there is a significant relationship between motivation and the application of the SBAR method in Harapan Kita Cardiovascular Hospital, with a p-value of 0.037 (<0.05) with (CI = 0.159-0.908) and an OR value of 0.379 means that nurses who having good motivation have a 0.379 times opportunity to increase the application of the SBAR method.

The analysis shows that the results of bivariate selection that enter into the multivariate modeling are knowledge (p = 0.012), attitude (p = 0.018), perception (p = 0.019), motivation (p = 0.025).

Logistic Regression Modeling / Multivariate Modeling

The variables associated with the application of the SBAR method are the

variables of perception, knowledge, and attitudes with the confounding variable being the motivation variable. The most dominant factor affecting the SBAR method is (table 4) the attitude with an Exp B value of 2.517. This means that people who have a good attitude have a 2.517 times chance of using the SBAR method well. Modeling results = application of SBAR = -0.935 + 0.932 (Attitude) + 0.919 (Knowledge) + 0.542 (Perception)

With this equation model, we can estimate the implementation of the SBAR method using attitude, knowledge, and perception variables, while the meaning of coefficient B of each variable is as follows: There is an attitude of 9% that the application of the SBAR method will run well if it is controlled with knowledge and perceptions. Good Shows 9% knowledge of the application of the SBAR method will run well if controlled with good attitudes and perceptions. There is a 5% perception that the application of the SBAR method will run well if it is controlled with good attitudes and knowledge.

Based on the model, it can be seen that the attitude and knowledge variables have the most influence on the application of the SBAR method at Harapan Kita Cardiovascular Hospital Jakarta.

The results of the interaction test show that all variables have no interaction between independent and independent factors (Table 5), namely perception with knowledge, perception with attitude, motivation with perception, knowledge with attitude, motivation with attitude, and motivation with knowledge with a p-value greater than 0.005.

Confounding Test Modeling

The results of this test are seen from the results of the p-value which is included in confounding (Table 6), namely perception, knowledge, attitude, and motivation. The table above shows that, after the motivation variable is excluded, there is no change in the OR value> 10%, then motivation is still excluded from the modeling.

DISCUSSIONS

Of the 102 respondents in the age range of 24-45 years, the majority of are women. In accordance with the actual situation, 46.1% of the nurses who work in the hospital are in the productive ages of 26-45 years (Swasky, 2010). The majority of the working period is 1- 5 years. This is supported by Gunawan et al. (2019) who state that the longer people work in an organization, the higher their work performance.

For the majority of Ners education, education is a determining factor in gaining knowledge. Every job or assignment requires knowledge that is supported by education and training (Notoatmodjo, 2010). Education can influence a person's lifestyle, especially in self-motivation (Nursalam, 2011). A person's education level can also affect communication. This result in line with previous study that level of education promotes the ability of nurses to communicate effectively to ensure service quality (Prado-Gasco et al., 2019).

In the results of the analysis of the relationship between the attitudes of nurses and the application of the SBAR method, the statistical test concluded that there was a significant relationship between attitudes and the application of the SBAR method in Harapan Kita Cardiovascular Hospital. The nurses who have a good attitude have 2.647 times the opportunity to improve the application of the SBAR method. This study is similar to the study conducted in Indonesia that attitude will affect a person's ability to convey information that has an impact on good communication (Rut et al., 2019). Thus, the attitude has an important role for nurses when communicating with both the patient or the medical staff. It impacts the understanding of the message and reduces the misunderstanding by the recipients. The results of the analysis of the relationship between the motivation of nurses and the application of the SBAR method showed that there is a significant relationship between the motivation of nurses and the application of the SBAR method. From the analysis, it was found that the prevalence odds ratio (POR) value was 0.379 (0.159-0.908), which means that nurses who have a good attitude have a 0.379 times chance to improve the application of the good SBAR method.

Based on the final results of the analysis, it was found that the variables that had a significant relationship with the incidence of applying the SBAR method or p-value <0.05 were knowledge, attitudes, and motivation. The results of the multivariate analysis of the

variable that had the highest Exp (B) value were the attitude variable with an Exp (B) value of 2.517 (p-value = 0.041, p-value <0.05), which means that attitudes have 2.517 times a chance to increase the application of the SBAR method.

CONCLUSION

Respondents in this study were generally 24-45 years old, gender was mostly women, with a work period of 1-5 years and a Bachelor-professional educational background. There is a significant relationship between the perceptions, knowledge, attitudes, and motivation of nurses with the application of the SBAR method. The variable that most influences the application of the SBAR method is attitude. The application of the SBAR communication method between nurses requires hospital support. Hospitals need to provide coaching and reward classes that can increase knowledge and positive attitudes so that they can support the effective application of the SBAR method.

Conflict of Interest

There are no conflicts occurred in the research.

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