ORIGINAL RESEARCH

THE EFFECTIVENESS OF COACHING USING SBAR (SITUATION, BACKGROUND, ASSESSMENT, RECOMMENDATION) COMMUNICATION TOOL ON NURSING SHIFT HANDOVERS

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Abstract
Background: The SBAR (situation, background, assessment, recommendation) method assists nurses in communicating information in nursing shift handover. Inaccurate shift handover can have a serious impact on patients due to poor communication. Optimal resource development can be done by coaching as the best guidance method from manager for directional discussion and guidance activity to learn to solve problem or do better job and build nursing leadership culture in clinical service.
Objective: To analyze the effectiveness of coaching method using SBAR communication tool on nursing shift handovers.
Methods: This was a quasi-experimental study with pretest posttest control group design. Fifty-four nurses were selected using a consecutive sampling, which 27 assigned in the experiment and control group. An observation checklist was developed by the researchers based on the Theory of Lardner to evaluate the effectiveness of the implementation of coaching using SBAR on nursing shift handover. Independent t-test, Mann-Whitney test and Wilcoxon test were used for data analyses.
Results: There was an increase in coaching ability of head nurses in the implementation of SBAR in nursing handover after 2-weeks and 4-weeks of coaching. There was also a significant improvement of the use of SBAR on nursing shift handover in the experiment group ($p < 0.05$) compared to the control group.
Conclusion: Coaching using SBAR (situation, background, assessment, recommendation) communication tool was effective on nursing shift handovers. There was a significant increase of the capability of head nurses and nursing shift handovers after given coaching intervention.

Keywords: coaching; SBAR; handover; nursing

INTRODUCTION

Nurses in the health service are the leading healthcare professional and the longest interacting with patients. Nurses should be able to maintain effective cooperation with all members of the health team. The ability to communicate is a fundamental aspect of nursing. The nurses interact directly with the patients for 24 hours, resulting in communication (Nasir, Muhith, Sajidin, & Mubarak, 2009). Through the communication nurse can provide information or explanation to the patients, persuade or perform other

tasks. In this communication the nurse is expected to be able to influence and convince the other party in patients, other health workers and colleagues. Nurses who can communicate well will improve the image of professionalism (Nasir et al., 2009).

Patient safety has become an important issue both global and national because of the increasing number of medical error cases that occurred in various countries. The Institute of Medicine (IOM) reported Unwanted Event data on hospitals in the United States, which is 1.5 million injured patients per year from treatment errors and 7,000 of them reportedly dead (Khushf, 2008).

In Indonesia, data on unexpected events, especially the event of near-injury is still scarce, but on the other hand there is an increase in allegations of "malpractice" which is not necessarily in accordance with the final verification. Considering the patient's safety has become a public demand, the implementation of hospital patient safety program needs to be done then the hospital needs to implement the patient's safety objectives. The patient's safety goals consist of 6 patient safety goals, and the most important element of care to patients is effective communication (Depkes, 2008).

Communication of information provided by nurses in shift exchanges or the process of handing out patients from outpatient to inpatient better known as handover is helpful in the patient care. A well-done handover can help identify errors and facilitate the continuity of patient nurses. Communication on shift handover has a very important relationship in ensuring continuity, quality and safety in health service. Communication in handover if not done right can cause some problems, including delays in medical diagnosis and increased possible side effects, as well as other consequences including higher costs of health care, larger providers and patient dissatisfaction (Alvarado et al., 2006).

Previous study stated that incidents in the hospital are related to communication problems (Clark, Squire, Heyme, Mickle, & Petrie, 2009). Handover is a technique or a way to convey and receive something (information) related to the patient's situation. Handover should be done as effectively as possible by explaining briefly, clearly and completely about the nurse's independent actions, collaborative actions that have been done / not and the development of patients at that time. The information submitted must be accurate so that the continuity of nursing care can run perfectly. Nursing handover done by nurses between hospital units in the hospital is in writing and oral (Field et al., 2011).

Coaching guidance method is a way to achieve the best performance for individuals and organizations. Coaching is one way to maximize performance (Gunawan, Aungsuroch, & Fisher, 2017; McNamara et al., 2014). It does not provide new skills or knowledge but instead it creates a coach to apply the knowledge, skills gained from previous experience to show the best performance. The synthesis of research results noted that 96% of coaching is able to improve individual performance and 87% of coaching can improve organizational performance (Neale, Spencer-Arnell, & Wilson, 2011).

A previous study conducted at Hajj Hospital Jakarta shows that 60% of head nurse coaching capability is still lacking (ST. Nurhayani, 2011). WHO statement relating to the process of giving guidance states the provision in the field of nursing using coaching method as an effort to increase the professionalism of nurses is still rare. Implementation of coaching is still done through seminars and workshops as well as traditional learning processes that emphasize assessment of what information has been learned (McNamara et al., 2014).

Based on the results of preliminary studies conducted in hospitals of dr.Moewardi Surakarta that 6 of 10 nurses declared not able to carry out SBAR (situation, background, assessment, recommendation) communication

properly. When doing shift handover nurses sometimes do not convey information relating to the condition of the patient includes medical diagnosis, given drugs, the patient's developmental record, and sometimes not delivering the results of the assessment of the patient's condition including the patient's problem, vital signs and the necessary action. It is found that more than 50% of nurses and person in charge in the hospital dr.Moeardi Surakarta were still confused to determine point B (Background) and A (Assessment) in applying SBAR communication method.

The results of interviews with 10 implementing nurses stated that no coaching program and guidance have been conducted. Evaluation conducted by the head nurses is based on their respective leadership styles, using classical methods of instruction and assignment in the supervision tasks. There is no method of coaching in the implementation and direction. The management stated that the hospital always strives to improve the existing human resources. Efforts already made by hospitals to improve resources are through nursing training such as head nurse's management training, providing further study opportunities to nurses. Training and seminar activities are often held, but coaching training as one of the management functions of actuating has never been done.

METHODS

Study design
This was quasi-experimental study with pretest posttest control group design.

Sample
The population in this study was the nurses in the inpatient ward of the General Hospital of Dr. Moewardi Surakarta amounted to 429 nurses. Fifty-four nurses were selected using consecutive sampling, which 27 assigned in the experiment and control group. The inclusion criteria of nurses were nurses in the inpatient ward, working more than one year, Diploma III and Bachelor level of nursing educational background.

Instruments
An observation checklist was developed by the researchers to evaluate the effectiveness of the implementation of coaching using SBAR on nursing shift handover with a choice of yes and no. The observation sheet consisted of three parts, namely preparation stage, information exchange stage, and information checking stage. The observation checklist was developed based on the theory of Lardner (Lardner, 1996). Content validity has been done with good validity result, and reliability was done using Pearson product moment, which was observed by head nurse.

Table 1 Reliability test of the implementation of SBAR on nursing handovers

Enumerator	Sig. (2-tailed)	Pearson Correlation
Enumerator1* Enumerator 2	0.000	0.930
Enumerator 1* Enumerator 3	0.000	0.956
Enumerator 2* Enumerator 3	0.000	0.956

Data collection
Preparation of data collection began with the creation of coaching guidance modules and handover observation sheets with SBAR. The study started from initial data before coaching guidance counseling through measurement with SBAR observation sheet on prepared handover. The observation was done directly by the researchers. Coaching training with SBAR material on handover was given to the nurse who performed for one day. Before and after the training was done pre-test and post-test to measure the knowledge of nurses in the implementation of SBAR on handover. The coaching by the head nurse was implemented for two weeks. The researcher and the head nurse agreed on the implementation of the coaching according to the phases that have been described, then the researchers observed the coaching by the head nurses and conducted joint evaluation using the observation sheet provided. The

implementation of coaching was done independently by head nurses for two weeks without any assistance and influence of the researcher.

Data analysis

Univariate analysis was used to analyze the existing variables descriptively according to the data type. Univariate analysis is a process of data processing by describing and summarizing data scientifically in the form of tables and graphs (Notoatmodjo, 2010). Data were presented in terms of mean, median, mode, standard deviation and median of SBAR in the experiment group and the control group, which displayed in tabular form. Bivariate analysis was also used to analyze the influence between two variables namely dependent variable and independent variable. Bivariate analysis was conducted to prove the research hypothesis that coaching

training resulted in different application of SBAR on handover. The defined confidence interval value was 95% with a significance level of 5% ($\alpha = 0.05$). The statistical test of data normality in control group and in the experiment group using Saphiro-Wilk because the sample was less than 50, with p-value = 0.000 (<0.05). Assessment of SBAR implementation on handover before and after coaching training in the experiment and control groups used Friedman Test.

RESULTS

The characteristics of respondents as shown in the table 2 aged 29.3 years with the mean length of working of 3.26 years. The majority of respondents were male (53.75%) with Diploma III background (61.15%).

Table 2 Characteristics of respondents based on age, length of working, gender, and educational background (N=54)

Characteristics	Category	Frequency
Age	Mean	29.3
	Min-Max	24-53
Length of working	Mean	3.26
	Min-Max	2-20
Gender	Male	29 (53.75)
	Female	25 (46.25)
Educational background	S1 (Bachelor)	21 (38.85)
	D3 (Diploma III)	33 (61.15)

**Figure 1** Coaching of head nurses based on observation in the experiment group
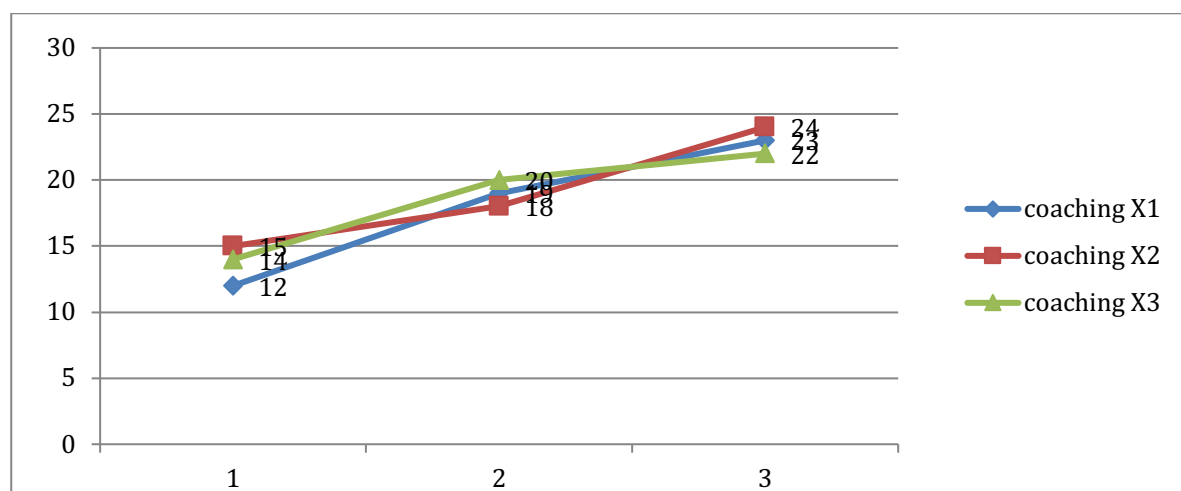
Respondent	Coaching X1 (Pre-intervention)	Coaching X2 (Post-intervention 2 weeks)	Coaching X3 (Post-intervention 4 weeks)
1	12	18	22
2	14	19	23
3	15	20	24

Figure 1 shows that there was an improvement of coaching ability of head nurse from pre-coaching and post-coaching in two weeks, as well as the improvement in four weeks of coaching; while Figure 2 shows that there was no improvement of coaching ability of head nurse from pre-coaching and post-coaching in two weeks, as well as no improvement in four weeks of coaching.

Figure 2 Coaching of head nurses based on observation in the control group
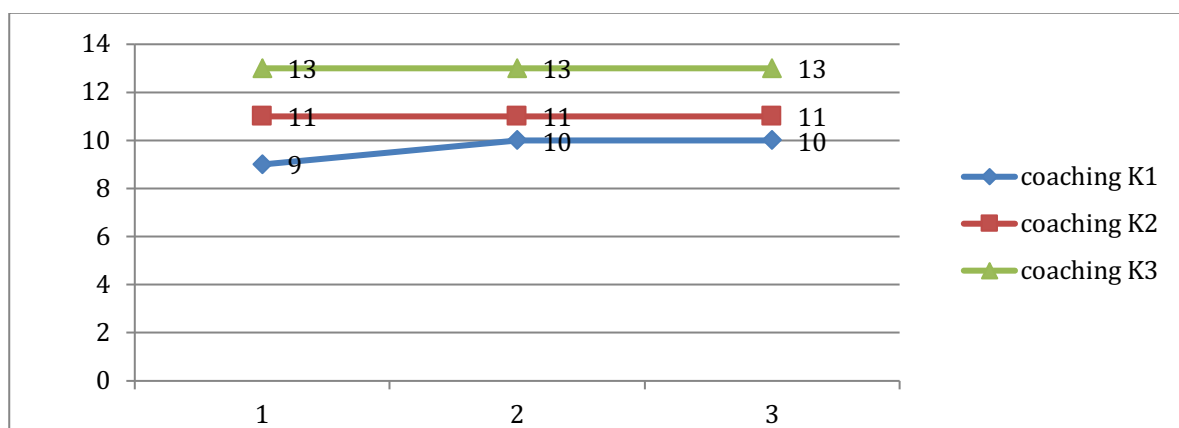
Respondent	Coaching K1 (Pre-intervention)	Coaching K2 (Post-intervention 2 weeks)	Coaching K3 (Post-intervention 4 weeks)
1	9	10	10
2	11	11	11
3	13	13	13

Table 3 The implementation of SBAR on nursing shift handover before and after coaching in the experiment and control group

The implementation of SBAR on nursing shift handover			
		Experiment	Control
Before coaching	Mean	10.89	10.30
	Min-Max	7-16	7-14
After coaching	Mean	15.93	10.52
	Min-Max	10-18	10-14

Table 3 shows that the score of the implementation of SBAR on nursing shift handover in the experiment group before coaching 10.89, and then increased to 15.93 after coaching. While in the control group, before coaching the score of the implementation of SBAR on handover was 10.30, and no improvement after coaching with score of 10.52.

Table 4 The implementation of SBAR on nursing shift handover before coaching in the experiment and control group using Independent t-test

Value	Experiment group	Control group	p-value
Mean	10.89	10.30	0.234*
Median	11.00	10.00	
Maximum	16	14	
Minimum	7	7	

Table 4 shows that the mean of the implementation of SBAR on nursing shift handover in the experiment group (10.89) and control group (10.30) was relatively same with p-value 0.234 (>0.05).

Table 5 The implementation of SBAR on nursing shift handover after coaching in 2 weeks in the experiment and control group using Mann-Whitney test

Value	Experiment group	Control group	p-value
Mean	14.78	10.48	0.024*
Median	15.00	10.00	
Maximum	17	14	
Minimum	10	7	

Table 5 shows that after 2 weeks of coaching, the experiment group had a higher mean score of SBAR than the control group. The average score of SBAR score in the experiment group was 14.78 with a minimum value of 10 and a maximum value of 17. Unlike the control group, the average score of the SBAR score was 10.48 with a minimum score of 7 and a maximum value of 14. From Mann-Whitney statistical test results obtained p = 0.024 (<0.05), which indicated that there was a significant difference in mean score of SBAR between the experiment group and the control group. The difference of SBAR between the experiment group and the control group was due to the treatment given to the two groups was not the same. In the experiment group, the researchers gave treatment in the form of coaching guidance method on SBAR on handover while in the control group was given Standard Operating Procedures (SPO).

Table 6 The implementation of SBAR on nursing shift handover after coaching in 4 weeks in the experiment and control group using Mann-Whitney test

Value	Experiment group	Control group	p-value
Mean	15.98	10.52	0.000*
Median	16.00	10.00	
Maximum	18	14	
Minimum	10	7	

Table 6 shows that after 4 weeks of coaching, the experiment group had a higher mean of SBAR score than the control group. The average score of SBAR score in the experiment group was 15.98 with a minimum value of 10 and a maximum value of 18. Unlike the control group, the average score of the SBAR score was 10.52 with a minimum score of 7 and a maximum value of 14. Mann-Whitney statistical test results obtained p = 0.000 (<0.05), which shows that there was a significant difference in mean score of SBAR between the experiment group and the control group.

Table 7 The implementation of SBAR on nursing shift handover before and after coaching in the experiment and control group using Friedman test

Group	Before coaching	After 2 weeks coaching	After 4 weeks coaching	p-value
Experiment	10.89	14.78	15.98	0.000*
Control	10.30	10.48	10.52	0.174*

Table 7 shows that the average score of the implementation of SBAR of the experiment group before treatment (pretest) was 10.89, increased to 14.78 after 2 weeks of coaching and increased to 15.98 after 4 weeks of coaching. There was also an increase of score in in the control group where the mean score of SBAR before treatment (pretest) was 10.30, increased to 10.48 after given SPO. However, the score of the implementation of SBAR in the experiment group was higher than the score in the control group

Table 8 Differences in the mean value of the implementation of SBAR on nursing shift handover before and after coaching in the experiment and control group using Wilcoxon test

	Experiment group		Control group	
	Mean	P-value	Mean	P-value
Pretest vs Coaching 2 weeks	3.89	0.000*	0.18	0.830*
Pretest vs Coaching 4 weeks	5.04	0.000*	0.22	0.317*
Coaching 2 weeks vs Coaching 4 weeks	1.15	0.000*	0.04	0.705*

Table 8 shows that there was significant difference of the mean value of the implementation of SBAR between pretest and after coaching for 2 weeks (p=0.000), between pretest and after coaching for 4 weeks (p=0.000), and between coaching for 2 weeks and coaching for 4 weeks (p=0.000); while there was no significant differences in the implementation of SBAR in all time of measurements in the control group with p-value >0.05.

DISCUSSION

The results of this study showed the ability of coaching of head nurses prior to the training in the control group and the experiment group had a mean value of 13.6, with the maximum value of coaching ability according to the observation sheet was 25, so it can be concluded that the ability of coaching ability of the head nurses reached 50%.

After coaching intervention, the capability of head nurses increased significantly with the mean value of 23. According to study, the training will improve skills and skill acquisition. Training can help nurses to work well, behave better, and improve confidence (Gunawan & Aungsuroch, 2017). In line with Law No. 36 of 2009 on Health, it is clear that the continuous development of expertise and authority should be upgraded through continuing education, one of which is training (Undang-undang Republik Indonesia, 2009).

Standard Operating Procedures (SPO) is the internal policy of the hospital and a key supporter of nurse compliance in performing actions in accordance with the standards. The implementation of SPO will be influenced by communication, resources, disposition, bureaucracy, self-desire, organizational support, socialization, and duration of work. Compliance of the SPO implementation is influenced by the length of work, study stated that if the employment over 5 years then the commitment to the organization is increasing with p= 0.001 (Jeli & Ulfa, 2014). Subramanian states that coaching is part of supervision (Subramaniam, Silong, Uli, &

Ismail, 2015). Natasia states that supervision is able to increase the performance of nurses in performing SBAR on handover. The results of this study showed that coaching was able to increase the SBAR on handover with p-value <0.001 (Natasia, Andarini, & Koeswo, 2015). Changes in SBAR measurements on handover were significant in the measurements before and after the training at week 2 and week 4, in accordance with Lewin's theory that, in the process changes until it reaches the clotting stage, which the nurse is consistent in taking action but requires continuous guidance and direction accordingly with the concept of supervision. It aims to maintain the quality that has been obtained (Lewin, 2013).

Changes occur not only in the experiment group but also in the control group. This is because the SPO has an important role to the officer's compliance. There is a need for guidance to optimize the implementation of the SPO, so that the SPO is not a workload, but as a tool to facilitate the work (Jeli & Ulfa, 2014). The use of SBAR methods in handover can improve communication and support a patient safety culture. The use of the SBAR method in appropriate and systematic, clear and concise can be used in every situation and every aspect of patient care. Clark, et al conducted research through the application of PACT project (patient assessment, assertive communication, continuum of care, team work with trust) to improve the handover communication by using SBAR method (Clark et al., 2009). The study involved 65 nurses and the results of the research revealed that 82% of nurses stated the need for standard of handover procedure, 94% said it is necessary to understand the communication because each nurse reporting differently, and 62% said the use of tools in communication such as SBAR method help nurses in communication.

CONCLUSION

Based on the result of research, it is concluded that coaching using SBAR (situation, background, assessment, recommendation)

communication tool was effective on nursing shift handovers. There was a significant increase of the capability of head nurse and nursing shift handover after coaching intervention.

Author Contribution
All authors contributed equally in this study.

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