

The Effect of SBAR Communication on Nurse Attitude and Behavior in Increasing Patient Safety in KRMT Wongsonegoro Hospital, Semarang

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Abstract

Introduction: WHO officially published the Nine Life Saving Patient Safety, which one is correct communication during handover using the SBAR method. SBAR is considered a clear sign and secure method of communication for problem solving among various disciplines in the medical environment and a simple way of sharing patient information with other medical professionals.

Methods: This research is a quasi-experimental study with a pretest-posttest design with control group design, the results of the research were processed using paired sample t-test. The data collection of this research uses a checklist of observation sheets to assess the ability of nurses to communicate SBAR, attitudes and behavior of nurses using a questionnaire.

Result and discussion: this study showed a significant difference in the attitudes and behavior of nurses in improving patient safety after being given SBAR communication materials with p-value < 0.05.

Conclusion: This study showed significant differences in the attitudes and behavior of nurses after being given SBAR communication training in the intervention group. Meanwhile, the control group showed a non-significant difference This showed that SBAR communication materials affect the attitudes and behavior of nurses in improving patient safety.

Introduction

According to the Minister of Health of the Republic of Indonesia Number 11 of 2017, patient safety is a system that makes patient care safer, including risk assessment, patient risk identification and management, incident reporting and analysis, the ability to learn from incidents and their follow-up, as well as implementing solutions to minimize risks and prevent of any unintentional events and conditions that result in or have the potential to result in injury (Diniyah, 2017). Nurses are a group that can sensitively recognize and manage problems related to patient safety. Nursing personnel are the main targets to improving patient safety competences such as knowledge, skills, and attitudes to protect patients from harm or injury (Jeong and Kim, 2020).

Attitudes and behaviors of nurses who do not maintain patient safety contribute to patient safety incidents, one solution to improve patient safety is by effective communication on nurses' attitudes and behavior (Sukesih, 2020). Poor communication is found in many different healthcare settings and is especially prominent in patient hand-offs and telephone communication, where these nursing activities really require fast and effective communication (Müller et al., 2018). The SBAR tool has been recommended by WHO to promote standardized and structured communication. SBAR was developed for use in urgent and time-sensitive medical situations (Park et al., 2021).

The actions required when using the SBAR tool are as follows: situation, succinctly state the problem; background, concisely present relevant information associated with the situation; assessment, provide an

analysis and consider the various options; and recommendation, recommend a specific action (Kostoff et al., 2016).

Muller M et al in their study stated that SBAR improves patient safety. There is some evidence of the effectiveness of applying SBAR on patient outcomes, but this evidence is lacked to certain circumstances such as telephone communication (Müller et al., 2018).

In Kostoff M et al.'s study reported that the pharmacy students using the SBAR communication tool improved their ability to organize information and make recommendations when talking to other healthcare professionals (Kostoff et al., 2016).

Methods

This research is a quasi-experimental study with a pretest-posttest design with control group design, the results of the research were processed using paired sample t-test. This research was conducted at RSUD KRMT Wongsonegoro Semarang, Jl. Fatmawati No. 1, Mangunharjo, Kec. Tembalang, Semarang City, Central Java. The population in this study were all 215 nurses who served in the inpatient room of RSUD KRMT Wongsonegoro Semarang. The sampling technique in this study was purposive sampling, include the entire population that met the inclusion and exclusion criteria, with 48 nurses, which were divided into an intervention group of 24 nurses and a control group of 24 nurses. Inclusion criteria: nurses who are willing to be respondents, have a minimum education of S-1 nursing, work as implementing nurses and have permanent employee status. Exclusion criteria: nurses who are on leave, nurses who are on study assignments and nurses who are in structural positions.

The data collection of this research uses a checklist of observation sheets to assess the ability of nurses to communicate SBAR, attitudes and behavior of nurses using a questionnaire. Data analysis in the study is divided into two parts, which is univariate analysis and paired-t.

Results

The result of the study obtained data on the characteristics of respondents based on age, gender and years of service. The number of samples in this study were 48 nurses consisting of 24 nurses as the intervention group and 24 nurses as the control group. Based on table 1, it can be seen that there was no significant difference in the age, gender and years of service of the respondents as indicated by the p-value > 0.05.

Table 1. Distribution of respondent characteristics

| Variable | Mean \pm SD | | Total (n = 48) | <i>p-value</i> |
|-----------------|-----------------------|------------------|-------------------|----------------|
| | Intervention (n = 24) | Control (n = 24) | | |
| Age | | | - | 0,13 |
| Mean | 29,46 \pm 3,78 | 28,04 \pm 3,04 | | |
| Min-Max | 24 - 41 | 25 - 38 | | |
| Gender | | | | 0,09 |
| Laki-laki | 8 | 9 | 17 | |
| Perempuan | 16 | 15 | 31 | |
| Year of service | | | - | 0,36 |
| Mean | 3,37 \pm 3,11 | 2,67 \pm 2,33 | | |
| Min-Max | 1 - 14 | 1 - 10 | | |

Based on table 2, it can be seen that the frequency of nurses' attitudes in improving patient safety in the intervention group, the majority of respondents strongly agree, namely 9 people (37.5%) at the pre-test and 11 people (45.8%) at the post-test.

Table 2. Frequency distribution of nurses' attitudes in the intervention group

| Attitude | Intervention group (n = 24) | | | |
|-------------------|-----------------------------|------|-----------|------|
| | Pre-Test | | Post-Test | |
| | f | % | f | % |
| Strongly disagree | 3 | 12,5 | 4 | 16,7 |
| Disagree | 5 | 20,8 | 3 | 12,5 |
| Neutral | 1 | 4,2 | 1 | 4,2 |
| Agree | 6 | 25 | 5 | 20,8 |
| Strongly agree | 9 | 37,5 | 11 | 45,8 |

Based on table 3, it can be seen that the attitude of nurses in improving patient safety in the control group, the majority had an agreeable attitude, namely 8 people (33.3%) at the pre-test and the majority had a strongly agree attitude, namely 9 people (37.5%) at the post-test. Meanwhile, in the attitude of strongly disagree, disagree and neutral, there was no differences in the pre-test and post-test.

Table 3. Frequency distribution of nurses' attitudes in the control group

| Attitude | Control group (n = 24) | | | |
|-------------------|------------------------|------|-----------|------|
| | Pre-Test | | Post-Test | |
| | f | % | f | % |
| Strongly disagree | 3 | 12,5 | 3 | 12,5 |
| Disagree | 5 | 20,8 | 5 | 20,8 |
| Neutral | 1 | 4,2 | 1 | 4,2 |
| Agree | 8 | 33,3 | 6 | 25 |
| Strongly agree | 7 | 29,2 | 9 | 37,5 |

According to table 4, it can be seen that the behavior of nurses in improving patient safety in the intervention group, the majority had a strongly agree behavior, namely 11 people (45.8%) at the pre-test and 14 people (58.3%) at the post-test.

Table 4. Frequency distribution of nurses' behavior in the intervention group

| Behavior | Intervention Group (n = 24) | | | |
|-------------------|-----------------------------|------|-----------|------|
| | Pre-Test | | Post-Test | |
| | f | % | f | % |
| Strongly disagree | 3 | 12,5 | 2 | 8,3 |
| Disagree | 1 | 4,2 | 1 | 4,2 |
| Neutral | 1 | 4,2 | 1 | 4,2 |
| Agree | 8 | 33,3 | 6 | 25 |
| Strongly agree | 11 | 45,8 | 14 | 58,3 |

According to table 5, it can be seen that the behavior of nurses in improving patient safety in the control group, the majority of respondents had a very agreeable behavior, namely 10 people (41.7%) at the pre-test and 12 people (50%) at the post-test. Meanwhile, in the attitude of strongly disagree, disagree and neutral, there was no differences in the pre-test and post-test.

Table 5. Frequency distribution of nurses' behavior in the control group

| Behavior | Control group (n = 24) | | | |
|-------------------|------------------------|------|-----------|------|
| | Pre-Test | | Post-Test | |
| | f | % | f | % |
| Strongly disagree | 2 | 8,3 | 2 | 8,3 |
| Disagree | 2 | 8,3 | 2 | 8,3 |
| Neutral | 1 | 4,2 | 1 | 4,2 |
| Agree | 9 | 37,5 | 7 | 29,2 |
| Strongly agree | 10 | 41,7 | 12 | 50 |

According to table 6, it can be seen that the comparison of nurses' attitudes before and after being given SBAR communication material in the intervention group increased from 53.50 to 56.50. Meanwhile, there was no significant differences in the comparison of nurses' attitudes in the control group.

Table 6. Comparison of nurses' attitudes between the intervention group and the control group

| Group | Mean \pm SD | | <i>p-value</i> |
|--------------|------------------|------------------|----------------|
| | Pre-Test | Post-Test | |
| Intervention | 53,50 \pm 4,46 | 56,50 \pm 3,85 | 0,01 |
| Control | 52,25 \pm 3,91 | 53,29 \pm 4,08 | 0,13 |

Based on table 7, it can be seen that the comparison of nurses' behavior before and after being given SBAR communication in the intervention group increased from 59.37 to 62.20. Meanwhile, there was no significant differences in the comparison of nurses' behavior in the control group.

Table 7. Comparison of nurses' behavior between the intervention group and the control group

| Group | Mean \pm SD | | <i>p-value</i> |
|--------------|------------------|------------------|----------------|
| | Pre-Test | Post-Test | |
| Intervention | 59,37 \pm 5,05 | 62,20 \pm 5,02 | 0,03 |
| Control | 59,04 \pm 5,02 | 59,08 \pm 5,13 | 0,94 |

Discussion

Based on the results of the study showed that there is no significant difference in the characteristics of the respondents in terms of age, gender and years of service as indicated by each p-value > 0.05 (Table 1).

The results of the frequency distribution of nurses' attitudes in the intervention group showed that the majority of respondents had a very agreeable attitude, namely 37.5% in the pre-test and 45.8% in the post-test (Table 2). The results of the frequency distribution of nurses' attitudes in the control group was not difference at the pre-test or post-test on attitudes strongly disagree, disagree and neutral (Table 3). The results of the frequency distribution of nurses' behavior in the majority intervention group had strongly agreed behavior, namely 45.8% at the pre-test and 58.3% at the post-test (Table 4). The results of the frequency distribution of nurses' behavior in the control group was not difference at the pre-test or post-test on attitudes strongly disagree, disagree and neutral (Table 5).

The results of the comparison of nurses' attitudes in improving patient safety before and after being given SBAR communication training showed a significant difference in the intervention group as indicated by a p-value <0.05. Meanwhile, in the control group, the comparison of nurses' attitudes in improving patient safety during the pre-test and post-test showed a non-significant difference with p-value > 0.05 (Table 6).

The results of the comparison of nurses' behavior in improving patient safety before and after being given SBAR communication training showed a significant difference in the intervention group as indicated by a p-value <0.05. Meanwhile, in the control group, the comparison of nurses' behavior in improving patient safety during the pre-test and post-test showed a non-significant difference with p-value > 0.05 (Table 7).

These results are in accordance with Sukesih's study where there are significant differences in attitudes and behavior in the intervention group (p-value = 0.000) and not significant in the control group (p-value = 0.103) (Sukesih, 2020). This result is also in accordance with Diniyah's study where effective communication skills have increased after getting effective communication training with the SBAR method, from 34.5% to 62.07% (Diniyah, 2017). The same results were also obtained in Jeong's study which showed that the SBAR-based simulation program had positive results in terms of patient safety for nursing students. SBAR can be used as a promising training intervention to improve reporting and communication skills of nursing students, as well as improve prevention and response to patient safety accidents (Jeong and Kim, 2020).

Conclusion

This study showed significant differences in the attitudes and behavior of nurses after being given SBAR communication training in the intervention group. Meanwhile, the control group showed a non-significant difference This showed that SBAR communication materials affect the attitudes and behavior of nurses in improving patient safety.

Declarations

Ethics approval: This research has been declared in accordance with the principles in the National Guidelines for Health Research Ethics (PNEPK) Ministry of Health RI 2011 and WHO-CIOMS 2016. This research has also been approved by the Health Research Ethics Commission (KEPK) Universitas Prima Indonesia with Number 016/KEPK/UNPRI/ XI/2021. In this study, all respondents have signed an informed consent which indicates that they have voluntarily agreed to become respondents.

Consent for publication: Not applicable

Availability of data and materials: All data generated or analysed during this study are included in this published article [and its supplementary information files].

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