

IMPLICATIONS OF JHONSON'S BEHAVIORAL THEORY: EFFECT OF BEDSIDE HANDOVER SBAR ON 6 PATIENT SAFETY GOALS

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Disubmit: 18 Februari 2026

Diterima: 28 April 2026

Diterbitkan: 01 Mei 2026

Doi: <https://doi.org/10.33024/mnj.v8i5.25156>

ABSTRACT

This research was carried out because patient safety incident problems that occurred in the span of 2025, which reflected that patient safety goals have not been optimally achieved. In addition, there is a problem with the head nurse in ensuring that *the handover process* runs according to standards. This study aims to analyse the influence of SABR bedside handover on 6 aspects of patient safety goals. This study is included in the category of quantitative research with a quasi-experimental design of two group pretest-posttest design, which involves an experimental group of 47 respondents, namely inpatient nurses who received SPAR-based bedside hand over training based on Johnson behaviour, and a control group of 47 nurses who only received leaflet bedside hand over based on SBAR is based on Johnson's behaviour. The results of the analysis concluded that bedside handover SBAR has a positive and significant effect on the aspect of patient safety goals. SBAR bedside handover has been proven to improve nurses' ability to achieve 6 patient safety goals.

Keywords: Bedside Handover, SBAR, Patient Safety Target.

INTRODUCTION

Patient safety goals can be realized if individual, organizational and communication factors can run in harmony with the expected goals (Mohammadi et al., 2024). In addition, the level of knowledge of nurses and other healthcare workers about patient safety concepts and standards is essential for their implementation (Rahmadana et al., 2024). Factors that affect patient safety goals can be categorized into several aspects, ranging from individual, organizational, to external factors, and success in achieving patient safety goals depends on the effective interaction between these various elements, not

just one single factor (Donaldson et al., 2020).

One of the elements that can affect the achievement of patient safety goals is cultural factors such as the process Handover patients with the SBAR (Stewart & Hand, 2020). Safety goal indicators are performance measures designed to evaluate and monitor the achievement of safety goals in healthcare to improve service quality, ensure compliance with safety standards, and encourage continuous improvement in the healthcare system, consisting of accurate patient identification, improved effective communication,

improved drug safety High-Alert, precise-location certainty, procedures, patient surgery, reduced risk of infection, and reduced risk of patient injury due to falls (Donaldson et al., 2020)

Process Handover is one aspect of patient safety culture that will shape patient satisfaction (Australian Commission on Safety and Quality in Health Care, 2020). Process Handover by the SBAR effective against patient safety goals because Provide a clear communication structure (Müller et al., 2018). Process Handover by the SBAR effective in achieving patient safety goals because it involves effective communication that can reduce errors and improve patient safety (Eggins & Slade, 2020). Handover by the SBAR reduce misunderstandings between health workers, ensure vital information is conveyed accurately and sequentially, and improve monitoring of patients' conditions so as to prevent or reduce unexpected events (Mulfiyanti & Satriana, 2022).

Process Handover by the SBAR effective in influencing patient safety goals due to active participation in patient safety programs and routine reporting of adverse events (Idealistiana & Aulia, 2022). Handover SBAR affect patient safety goals because Structured communication helps ensure that all necessary patient details are shared accurately and completely during the care transition, which in turn prevents unwanted events and improves the overall quality of patient care (Nurtti et al., 2025). Although different things happen where handover SBAR does not affect patient safety goals if nurses are trained (Simamora & Fathi, 2019), and has no effect if Effective corrective mechanisms and risk mitigation are not well implemented (Tataei et al., 2023). Success

indicators Handover by the SBAR including the completeness and accuracy of the information conveyed, clear and concise communication, and improvements in patient safety due to structured information transfer. These indicators include the effectiveness of using the SBAR format (Situation, background, assessment, recommendation) (Eggins et al., 2016).

One of the hospitals that is the object of this research is hospital X in Tangerang. Based on secondary data obtained at the beginning of the study, objective incident report data for the period January - October 2025 occurred 150 patient safety incidents, namely human error and medication error due to inconsistency in nursing actions with doctor's instructions recorded in electronic medical records in the inpatient room. The results of the analysis that have been carried out are 90% due to the lack of effectiveness of the handover system carried out between nurses. So far, the handover has not run properly and the bedside handover has not been carried out effectively with the SBAR method. It can be seen that several patient safety incidents that occur in 2025 show suboptimal achievement of patient safety goals.

Based on the previous description, it can be seen that research on the effect of SBAR handover on patient safety goals has been carried out by many researchers, but none of the above studies have used a quasi-experimental method with a **two-group pre-test and post-test** approach, so that the novelty in this study lies in the research method used, and specifically this study examines the effectiveness of SBAR bedside handover on patient safety goals in inpatient units. Based on the problem of nurses' lack of

understanding of the effective SBAR-based bedside handover process resulting in several patient safety incidents occurring in inpatient units for the 2025 period, to ensure the correctness of these predictions, it is necessary to conduct further research with the aim of determining the influence of the implementation of SBAR-based bedside handover on 6 aspects of patient safety goals in nurses in inpatient rooms.

LITERATURE REVIEW

Johnson's Theory of Behaviour (developed by Dorothy Johnson in 1968) reveals that each individual has a patterned, purposeful, and repetitive way of acting that consists of a system of behaviour that is specific to that individual. The principles of Johnson's behavioural system model state that human behaviour is categorized into 7 subsystems, namely attachment, achievement, aggressive, dependence, sexual, ingestive, and eliminative. Each subsystem consists of a series of behavioural responses or tendencies that have a common goal. Nurses help restore balance through external behavioural regulation (Kamil & Tahlil, 2022).

In Johnson's theory, it is stated that achievement, aggressiveness, and dependency are subsystems that determine individuals to act. (1) The achievement subsystem relates to the individual's ability to achieve goals and meet the need for achievement. These subsystems include: motivation to achieve goals, the ability to set realistic goals, the ability to develop strategies to achieve goals and the ability to evaluate results and make adjustments. Individuals with a strong achievement subsystem tend to be highly motivated, set realistic goals, and have the ability to achieve those goals. (2) The aggressiveness

subsystem is related to the individual's ability to face challenges and overcome obstacles. These subsystems include: the ability to deal with stress and frustration, the ability to develop strategies to overcome obstacles, the ability to express emotions in a healthy way and the ability to defend oneself from threats. Individuals with a strong aggressiveness subsystem tend to have the ability to face challenges, overcome obstacles, and defend themselves against threats (Kamil & Tahlil, 2022).

(3) The dependency subsystem has to do with the ability of the individual to form relationships with others and meet the need for affiliation. These subsystems include: the ability to form healthy relationships with others, the ability to ask for help and support, the ability to provide help and support to others, the ability to maintain healthy relationships. Individuals with strong dependency subsystems tend to have the ability to form healthy relationships with others, ask for help and support, and provide help and support to others (Kamil & Tahlil, 2022).

Based on the three subsystems, it shows that nurses have dependency in achieving achievements and aggressiveness in realizing patient safety, so SBAR handover is needed by nurses to share patient information between shifts and ensure continuity of care from one shift to another, so that safe nursing services can be delivered to patients. In Johnson's theory of behaviour, these three subsystems interact and influence individual behaviour. Individuals who have a strong subsystem of achievement, aggressiveness, and dependency tend to have the ability to achieve goals, face challenges, and form healthy relationships with others. It can be seen that Johnson's

behavioural theory is related to the behaviour of nurses in carrying out their role as professional nursing service providers by always prioritizing patient safety, where the results are related to their behaviour that makes the culture of patient safety as the basic principle of safe nursing services for patients so as to avoid them making mistakes in providing nursing actions.

Based on the goals of the researcher that have been set, for the purpose of it, research questions are determined; (1) Whether SBAR-based bedside handover has an effect on the accuracy of patient identification, before and after the intervention. (2) Whether SBAR-based bedside handover has an effect on SBAR-based bedside handover on aspects of improving effective communication, before and after intervention. (3) Whether SBAR-based bedside handover has an effect on the aspect of improving the safety of High-Alert drugs, before and after treatment. (4) Whether SBAR-based bedside handover has an effect on the certainty aspects of the right location, procedure, patient surgery, before and after the intervention. (5) Whether SBAR-based bedside handover has an effect on the aspect of reducing the risk of infection, before and after the intervention. (6) Whether SBAR-based bedside handover has an effect on the aspect of reducing the risk of patient injury due to falls before and after the intervention.

RESEARCH METHODOLOGY

This research is included in the category of quantitative research with a quasi-experimental design of two group pretest-posttest. This study involved two groups, namely the experimental group that received Johnsons' behavioural training related to the SBAR-based

bedside hand over process, and the control group that only received a leaflet on Johnsons' behaviour related to the SBAR-based bedside hand over process.

The population in this study is 110 inpatient nurses in private hospitals in Tangerang. This population is used because of several patient safety incident problems that occur in the 2025 range, which illustrates the suboptimal achievement of patient safety goals. Sampling in this study is non-probability sampling. In this method, sample selection is not based on a random process, but rather based on certain considerations such as availability, ease of access, or research objectives. The sample calculation used the slovin formula with an error rate of 5% so that the result was found to be 86.27, from this number it was increased by 10%, so it was determined that the minimum sample number was 94 respondents with the following criteria: Inclusion Criteria: (1) Are nurses who serve in inpatient services. (2) Nurses who are on duty when the survey is conducted. Exclusion Criteria: (1) Managerial group nurses. (2) Nurses who are on leave. The sampling technique used cluster sampling which was two groups of equal size, namely the experimental group of 47 respondents and the control group consisting of 47 respondents.

This study consists of 2 variables, namely: 1 independent variable of SBAR (X-based) bedside handover with the aim of measuring nurses' behaviour in carrying out the bedside handover process based on the SBAR method in inpatient facilities, with aspects of situation, background, assessment, recommendation, consisting of 8 checklists. The bound variable is 6 aspects of patient safety goals (Y) which are aimed at measuring the

level of nurse discipline in making 6 patient safety goals as a working principle so that services can be delivered safely in inpatient installations, which consist of aspects of accurate patient identification, increased effective communication, and increased safety of high-alert drugs, the exact certainty-location, procedure, patient surgery, risk reduction of infection, and reduction of the risk of patient injury due to falls, and consists of 12 questions. Data collection in this study was carried out with a time table, to obtain the evidence needed to solve the research problem. The data collection tools in this study are **questionnaires** that are compiled to measure **patient safety goals, as well as bedside hand over checklists that apply in hospitals.**

Submission of ethics review is carried out by filling out the form and completing the required documents, such as ethics protocols, proposals complete with the researcher's CV, informed consent and research instruments, proof of payment. The UNKAHA Ethics Committee assesses the risks of the research and determines the categories of the study: Exempted (free of ethical review, minimal risk), Expedited (quick review, medium risk), Full board (plenary review, high risk or vulnerable subject). The results of the study by the UNKAHA Ethics Committee were obtained as Approved and given an Ethical Approval letter with letter number 0445/KEP/UNKAHA/LPPM/XI/2025.

The descriptive analysis in this study used the mean analysis method, where in the assessment of patient safety target variables, the highest quality value was 4 and the lowest was 1, and the assessment of the SBAR-based bedside handover variable, the highest quality value

was 2 and the lowest was 1. **Inferential Statistical Analysis** uses the data analysis method using a statistical program, which consists of **a different test of the Wilcoxon Signed-Rank Test because the data is not distributed normally** after the normality test is carried out. Linear regression analysis was carried out to determine the ability of independent variables to influence bound variables.

RESEARCH RESULTS

Validity tests were conducted on 30 respondents on variable 6 patient safety goals using the correlation of moment products with the results of analysis which showed that all calculation values in variable 6 patient safety targets had a calculation value of > 0.361 so that it was concluded that all instruments in variable 6 patient safety goals were declared valid, and could be used as research instruments. The results of the reliability analysis showed that the Cronbach' alpha value had a value of $0.744 > 0.70$. Therefore, according to the assumption of decision-making, if Cronbach's alpha value > 0.70 , the instrument is considered reliable, so that all instruments contained in variable 6 patient safety goals can be relied upon for data collection tools.

The following results of the demographic recapitulation of the respondents of the experimental group as many as 47 inpatient nurses concluded that in the experimental group, nurses were dominated by women with a percentage of 94%, with the most age range of 31 - 35 years of age at 40% and with the most recent education was the nursing profession with a percentage of 45%. In addition, the working period of nurses is dominated by nurses with a working period of 4-7 years with a percentage of 45%. The

following results of the demographic recapitulation of the respondents of the experimental group as many as 47 inpatient nurses concluded that in the control group, nurses were dominated by women with a percentage of 89%, with the highest age range of $\leq 25 - 30$ years of age at

38% and with the most recent education was D3 nursing with a percentage of 40%. In addition, the working period of nurses is dominated by nurses with a working period of 1-3 years with a percentage of 45%.

Table 1. Pre-Test and Post-Test Bedside Handover SBAR

Indicator	Experimental Group		Control Group	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Location	1.79	1.87	1.50	1.64
Background	1.74	1.88	1.61	1.76
Assessment	1.80	1.91	1.57	1.84
Recommendation	1.82	1.86	1.57	1.72
Average Bedside Handover SBAR	1.79	1.88	1.56	1.74
Categories	Good	Good	Good	Good

Source: Data Processed, 2026

Based on table 1, it shows that there is a change in the response pattern of nurses to the implementation of bedside handover SBAR in the experimental group and the control group, where there is an

increase in nurses' perception of the effectiveness of the handover process with the SBAR method in inpatient facilities, even though the pretest and posttest are all in the good category.

Table 2. Pre-Test and Post-Test 6 Patient Safety Goals

Indicator	Experimental Group		Control Group	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Patient identification	3.62	3.69	2.76	3.69
Effective communication	3.56	3.66	2.77	3.72
Improved safety of high-alert drugs	3.54	3.63	2.78	3.69
Precision certainty-location, procedure, patient surgery	3.53	3.63	2.74	3.61
Reduced risk of infection	3.49	3.54	2.72	3.47
Reduced risk of patient injury due to falls	3.46	3.53	2.72	3.52
Average of 6 patient safety goals	3.53	3.61	2.75	3.62
Categories	Excellent	Excellent	Good	Excellent

Source: Data Processed, 2026

Based on table 2, it shows that there is a stability in the pattern of changes in nurses' responses in the experimental group, where at the time of the pretest and post-test their discipline to realize 6 patient safety measures remained in the very good category, even though at the post-test there was an increase in the average score. In the control group, there was an increase in the pattern of ladder changes during the

pretest and post-test, where during the pretest their discipline to realize 6 patient safety measures was in the good category, while during the post-test it was in the very good category.

To determine the difference between the control group and the intervention group, a data normality test was performed using the Kolmogorov-Smirnov Test with the following results:

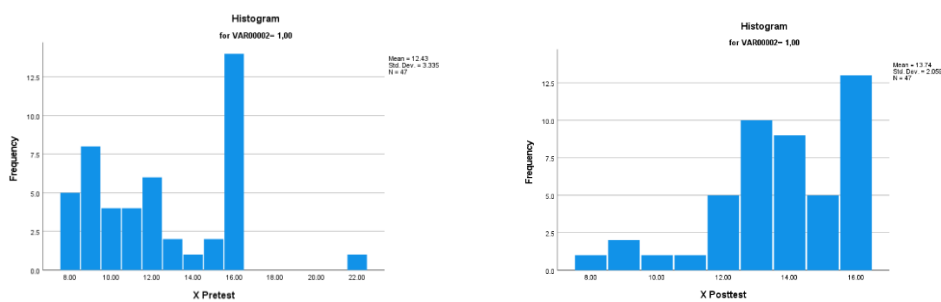


Figure 1. Normality Test Results of Pretest and Posttest Data for SBAR Bedside Handover Variables
Source, Data Processed, 2026

Based on figure 1 above, it can be seen that during the pretest and post-test, the diagram does not form a symmetrical bell around the mean value and has only a few peaks, based on the assumption of decision-making for the data normality test,

it is concluded that the data is not distributed normally. Thus, for the difference test on the bedside handover variable SBAR uses non-parametric statistics, namely the Wilcoxon signed rank test.

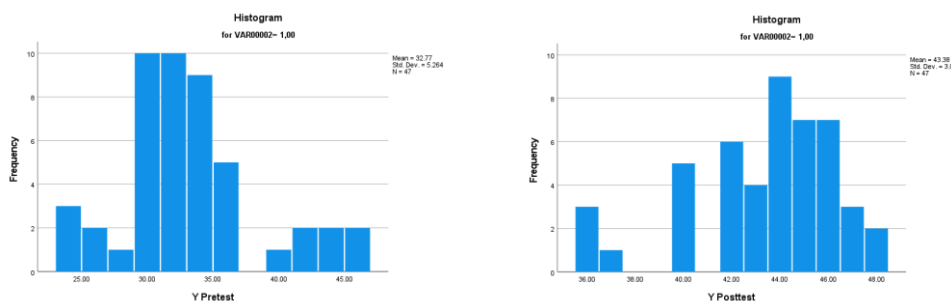


Figure 2. Normality Test Results of Pretest and Posttest Data Variables 6 Patient Safety Goals
Source, Data Processed, 2026

Based on figure 2 above, it can be seen that during the pretest and

post-test, the diagram does not form a symmetrical bell around the mean

value and only has a few peaks, based on the assumption of decision-making for the data normality test, it is concluded that the data is not distributed normally. Thus, for the differential test on variable 6 patient safety targets, non-parametric statistics were used, namely the Wilcoxon signed rank test.

At this stage, a different test will be carried out for each research

variable, both the experimental group and the control group, based on the results of the pretest and post-test, using the paired sample T test with a reference for the decision formulation, if the Asymp.sig value is < 0.05 , then there is a difference between the results of the respondents' responses to the variables studied for the pretest and post-test.

Table 3. Test Results Different from Wilcoxon Signed Rank Test

Variable	Groups	Asymp.Sig	Remarks
Bedside handover SBAR	Experiments	0,084	Insignificant
	Controls	0,003	Significance
6 Patient safety goals	Experiments	0,612	Insignificant
	Controls	0,000	Significance

Source, Data Processed, 2026. ($P < 0.05 = \text{Significant}$)

The final results for the difference test on each variable summarized in table 3 concluded that: (1) The bedside handover SBAR experienced significant differences only in the control group ($p = 0.003$), while the experimental group did not experience significant changes ($p = 0.084$). (2) 6 patient safety targets experienced significant differences only in the control group ($p = 0.000$), while the experimental group did not experience significant changes ($p = 0.612$).

Previously, a data normality test was carried out to ensure that

the data is distributed normally as the main requirement for the parametric statistical test. The test results that can be seen on the appendix page conclude that the value of Asymp. Sig. (2-tailed) at the time of pretest and post-test is $0.200 > 0.05$. Based on the assumption of decision-making, the data normality test if the significance value is > 0.05 , then the data is distributed normally. Thus, the assumptions or requirements in the linear regression model have been met, and can be continued to analyse the linear regression model.

Table 4. Pretest Linear Regression Test Results

Influence	Constant	Coefficients	Asymp.Sig	R2
Bedside handover SBAR - > Accuracy of patient identification	4,327	0,355	0,001	0,126
Bedside handover SBAR - > Improved effective communication	4,870	0,244	0,018	0,059
Bedside handover SBAR - > Improved safety of high-alert drugs	2,899	0,240	0,020	0,058

Influence	Constant	Coefficients	Asymp.Sig	R2
Bedside handover SBAR - > Certainty of precise- location, procedures, patient surgery	4,812	0,264	0,010	0,070
Bedside handover SBAR - > Reduced risk of infection	4,767	0,263	0,010	0,059
Bedside handover SBAR - > Reduced risk of patient injury due to falls	4,397	0,327	0,001	0,107

Source: Data Processed, 2026 (P < 0.05 = Significant)

Referring to table 4 on the results of linear regression analysis at the time of pretest, it is concluded that bedside handover SBAR has the most dominant effect on the accuracy of patient identification because it is part of

the 6 patient safety goals because it has an influence of 35.5%. Meanwhile, the lowest, bedside handover SBAR has an effect on increasing the safety of High-Alert drugs, because it only has an effect of 24%.

Table 5. Post-test Linear Regression Test Results

Influence	Constant	Coefficients	Asymp.Sig	R2
Bedside handover SBAR -> Accuracy of patient identification	4,417	0,389	0,000	0,151
Bedside handover SBAR -> Improved effective communication	4,298	0,437	0,000	0,191
Bedside handover SBAR -> Improved safety of high- alert drugs	4,257	0,4,36	0,000	0,190
Bedside handover SBAR -> Certainty of precise- location, procedures, patient surgery	4,041	0,427	0,000	0,182
Bedside handover SBAR -> Reduced risk of infection	3,676	0,474	0,000	0,224
Bedside handover SBAR -> Reduced risk of patient injury due to falls	3,401	0,443	0,000	0,196

Source: Data Processed, 2026 (P < 0.05 = Significant)

Based on the entire series of linear regression analysis results in table 5 at the post-test, it was concluded that bedside handover SBAR had the most dominant effect on the aspect of reducing the risk of infection due to the part of 6 patient

safety goals because it had an effect of 47.4%. Meanwhile, the lowest bedside handover SBAR has an effect on the accuracy of patient identification, because it only has an effect of 38.9%. Overall, by comparing the results of linear

regression analysis during pretest and post-test, it can be seen that there is an increase in the effect of bedside handover SBAR on 6 aspects of patient safety goals during post-

test, where bedside handover SBAR can increase aspects of 6 patient safety goals higher than during pretest.

DISCUSSION

Effect of SBAR Bedside Handover on the Accuracy of Patient Identification Before and After Intervention

The results of the analysis concluded that before and after the intervention, bedside handover SBAR has a positive and significant effect on the accuracy of patient identification, so that by increasing the effectiveness of the process bedside handover SBAR, then the ability of nurses to identify patients appropriately can be improved. These results are in line with research that concluded that bedside handover SBAR Provide a structured, standardized communication framework that reduces miscommunication, clarifies critical information, and drives the achievement of stronger patient safety goals within healthcare teams (Martínez-Fernández et al., 2022), and bedside handover SBAR affect the accuracy of patient identification (Müller et al., 2018). These results are in line with the opinion that there are several factors that affect patient safety goals, ranging from individual and organizational factors, and that success in achieving patient safety goals depends on the effective interaction between these various elements, not just one single factor (Donaldson et al., 2020).

This means that nurses as caregivers have the responsibility to deliver safe nursing services for patients, and they are equipped with qualified competencies to make this happen, and bedside handover SBAR As a method that organizations are

required to implement in nursing care, requiring nurses to perform a bedside handover, allowing the nurse on duty to verify the patient's identity directly through the identity bracelet and match it to the data in the medical record while listening to the SBAR report. The SBAR format ensures that critical information such as names, diagnoses, and current conditions are conveyed systematically, which helps to prevent confusion between patients with similar names or conditions, so that overall, the integration between location and SBAR methods creates an effective double check system to ensure the accuracy of patient identification before the next shift resumes. Other findings concluded that after the intervention, bedside handover SBAR This is in line with Johnsons' theory which reveals that each individual has a patterned, purposeful, and repetitive way of acting consisting of a behaviour system that is specific to the individual, namely achievement, aggressiveness, and dependence as a subsystem that determines the individual to act (Kamil & Tahlil, 2022).

He said that because there are goals in the form of achievements related to patient safety goals that must be achieved, nurses need development both obtained from practical behavior training and instructions in the form of leaflets related to the implementation of procedures bedside handover SBAR effective, so that they are able to achieve patient safety goals in accordance with applicable

standards. This shows that nurses have dependency in achieving achievements and aggressiveness in realizing patient safety. At the time of the posttest, the influence bedside handover SBAR on the accuracy of patient identification, is the weakest result compared to the effect of bedside handover SBAR. Regarding the other 6 aspects of safety recommendations, if referring to the results of the descriptive analysis, this result occurs due to problems with the Location. In the experimental and control groups that reflected the nurse's ability to clearly carry out the patient identification process, it was seen that the nurse was constrained in mentioning major medical diagnoses and nursing issues at shift shifts, and the submission of the patient's current condition, including major complaints during shift changes, so as to impact the ability of nurses to properly identify patients before administering treatment or actions, and to identify patients using at least two different patient identities.

Effect of SBAR Bedside Handover on Effective Communication Before and After Intervention

The results of the analysis concluded that before and after the intervention, bedside handover SBAR have a positive and significant effect on effective communication, so that by increasing the effectiveness of the process bedside handover SBAR, then the ability of nurses to communicate effectively can be increased. These results are in line with research that concluded that bedside handover SBAR Provide a structured, standardized communication framework that reduces miscommunication, clarifies critical information, and drives the achievement of stronger patient safety goals within healthcare teams (Martínez-Fernández et al., 2022),

and bedside handover SBAR is significant in improving effective communication, information accuracy, and patient safety, where this combination ensures structured data exchange, increases nurse satisfaction, and minimizes medical errors through direct patient involvement at the bedside (Abdollahi et al., 2022).

This result is in line with the opinion that states that handover SBAR is the process of communication or handover of information about patients between shifts of health workers using a framework SBAR (Situation, Background, Assessment, Recommendation) to ensure accurate, clear, and concise delivery of information, thereby enabling the continuation of safe and effective patient care (Eggin et al., 2016). This means that in consistent SBAR Communication when bedside handover Reducing the risk of errors due to incompleteness of information, which is often the cause of unexpected events, SBAR helps to flatten traditional hierarchies and facilitate effective communication between healthcare workers, in addition to bedside handovers SBAR has been proven to improve the quality of communication and nurse satisfaction because the information provided is more structured, clear, and complete. Other studies concluded that after the intervention, bedside handover SBAR greater contribution in improving effective communication, this is in line with Johnsons' theory which emphasizes the role of the nurse as a regulator of the patient's lifestyle to keep it stable, and that each individual has dependency and has a need for achievement and aggressiveness (Kamil & Tahlil, 2022).

This means that training and modules bedside handover SBAR, becomes a guide on how to do the right method of communication when running the process handover, so that with this intervention, nurses can be more optimal in using the SBAR format when bedside handover, where they work to ensure vital clinical information is delivered clearly and completely, which directly reduces the risk of miscommunication. In addition, with the interventions, nurses can flatten traditional hierarchies and build a common language within the healthcare team, which is relevant to Johnson's goal of creating a supportive environment for patients through solid team coordination.

Effect of SBAR Bedside Handover on Improved Safety of High-Alert Medications Before and After Intervention

The results of the analysis concluded that before and after the intervention, bedside handover SBAR have a positive and significant effect on improving the safety of medicines High alert, so that by increasing the effectiveness of the process bedside handover SBAR, then nurse discipline towards the safety of medicines High alert can be increased. These results are in line with research that concluded that bedside handover allows nurses to visually double-check the label, dosage, and drip rate of the infusion (Pinto et al., 2025). Implementation SBAR Structurally, it has been proven to significantly reduce the number of medication administration errors (Alizadeh-Risani et al., 2024). These results support Johnson's theory that views patients as behavioral systems that need balance, where nurses act as external regulators to maintain that balance through structured nursing care (Kamil & Tahlil, 2022).

This means that patients are highly dependent on nurses to prevent misdosing, and bedside handover SBAR ensures drug information High alert delivered accurately, so that nurses on the next shift can provide safe interventions. Bedside handover SBAR provides nurses with the opportunity to review therapy with patients, ensure "patient safety" goals are achieved, and minimize human error, and assessments in SBAR force nurses to evaluate the patient's current condition, including risks related to ongoing treatment. Other findings concluded that after the intervention, bedside handover SBAR greater contribution in improving the safety of medicines High alert, this is in line with Johnson's theory which views that individuals have dependency and have a need for achievement and aggressiveness (Kamil & Tahlil, 2022).

This means that training and modules bedside handover SBAR based on Johnson's behavior, can foster a sense of responsibility and involvement of nurses in patient safety, improve adherence to drug safety procedures. In addition, the intervention formed the nurse's intuition in ensuring critical information related to drugs High alert It is conveyed in a structured manner during the weighing, preventing information omission. At the time of pretst, the influence bedside handover SBAR To improve the safety of medicines High alert, is the weakest result compared to the influence bedside handover SBAR Regarding the other 6 aspects of safety recommendations, if referring to the results of the descriptive analysis, this result occurs due to problems with the Location In the control group, it was seen that the nurses were constrained in mentioning major medical diagnoses

and nursing issues at shift shifts, and the presentation of the patient's current condition, including major complaints during shift changes, thus impacting the nurse's ability to store separately and provide clear labels on medications High alert, and double checking the drug High alert before being administered to the patient.

Effect of SBAR Bedside Handover on Precise-Location Certainty, Surgical Patient Procedures Before and After Intervention

The results of the analysis concluded that before and after the intervention bedside handover SBAR have a positive and significant effect on the certainty of the exact location, procedures of the surgical patient, so that by increasing the effectiveness of the process bedside handover SBAR, then the nurse's discipline in ensuring the right location, the procedure of the surgery patient can be improved. These results are in line with research that concluded that bedside handover SBAR Establish effective communication flows, which ensures the accuracy of the location, procedure, and identity of the surgical patient (Daicampi et al., 2025). SBAR ensures critical information about the location of the body to be operated on, procedures, and patient conditions is accurately documented and verified at the time of the operation, reducing the risk of procedural errors (Cruchinho et al., 2025).

SBAR minimizes unclear verbal communication, so that the surgical team has a shared mental model of the patient (Anshasi & Almayasi, 2024). In addition, this result is in line with Jhonson's behavioral theory which views humans as a system of behavior that seeks to achieve balance, and emphasizes the subsystem of dependency (Kamil &

Tahlil, 2022). This means that bedside handover SBAR ensures structured clinical information is passed on to the next nurse, creating a sense of security and certainty of information, which is the process bedside handover allowing nurses and patients to directly verify the surgical site, achieving patient safety goals, thus minimizing procedural errors. Other findings concluded that after the intervention, bedside handover SBAR greater contribution in improving the certainty of the exact location of the surgical patient's procedures, this is in line with Johnson's theory which focuses on behavioural balance to achieve clinical goals (Kamil & Tahlil, 2022). Training and modules bedside handover This theory-based SBAR improves the compliance and effectiveness of nurse behavior, which directly guarantees the precise location and procedures of the patient's surgery. In addition, training and modules bedside handover Jhonson's behavior-based SBAR facilitates the shift in nurse behavior from simply handing over information to proactive communication that ensures patient safety during surgical procedures.

By training nurse behavior to be more thorough and standardized during bedside handovers, the risk of mislocation or incorrect procedures can be minimized, and with the intervention that nurses get through Jhonson's behavior can internalize handover SBAR as part of a routine, not just a task, thus increasing compliance with surgical procedures.

Effect of SBAR Bedside Handover on Infection Risk Reduction Before and After Intervention

The results of the analysis concluded that before and after the

intervention bedside handover SBAR has a positive and significant effect on reducing the risk of infection, so that by increasing the effectiveness of the process bedside handover SBAR, then the ability of nurses to minimize the risk of infection can increase. These results are in line with research that concluded that the bedside handover SBAR Improve patient safety by minimizing miscommunication during shift changes and ensuring critical information about patient conditions and infectious environments is accurately conveyed (Pamphila et al., 2024). Bedside handover SBAR is not just an operative routine, but a crucial strategy to ensure the continuity of infection care and control, where with SBAR, information about the patient's infection status is conveyed accurately, and bedside, validation of the patient's condition is carried out directly, so that the risk of nosocomial infection can be reduced (Bonaconsa et al., 2024).

In addition, these results are in line with Johnson's behavioral theory which emphasizes that the goal of nursing care is to regulate the patient's behavioral system to be balanced and efficient to prevent disease (Kamil & Tahlil, 2022). This means that bedside handover SBAR Forming a nurse can identify ineffective behaviours and immediately correct them, thus preventing infections and restoring the balance of the body's systems. In addition, the ability to bedside handover SBAR As a tool to maintain the balance of the patient's behavioural system, where by ensuring that clinical information about the risk of infection is handed over intact, nurses take adaptive precautions against the potential for nosocomial infection. Other findings concluded that after the intervention, bedside handover SBAR

greater contribution in improving the reduction of the risk of infection, this is in line with Johnson's theory which views that the goal of nursing is to help the individual in this case, the behaviour of the nurse to act adaptively and effectively, which ultimately prevents disease (Kamil & Tahlil, 2022).

This means that Johnson's behaviour-based training and modules educate nurses to Handover not only aborting administrative obligations, but becoming safety-conscious behaviour, so that with this intervention helps nurses consciously convey infection points during SBAR, which directly reduces the risk of nosocomial infection. In addition, Johnson's behavioural interventions can change nurse behaviour to be more proactive, structured through SBAR), and patient-focused, thereby improving adherence to infection prevention standards upon patient handover.

Effect of SBAR Bedside Handover on Reducing the Risk of Patient Injury Due to Falls

The results of the analysis concluded that bedside handover SBAR have a positive and significant effect on reducing the risk of patient injury due to falls, thereby increasing the effectiveness of the process bedside handover SBAR, so the ability of nurses to minimize the risk of patient injury due to falls increases. These results are in line with research that concluded that bedside handover SBAR transforming the operant process from just shifting to a proactive tool to improve patient safety and reduce fall incidents (Jeong & Kim, 2020). bedside handover allowing patients and families to listen to and confirm information, which increases their awareness of the risk of falls, and components SBAR forcing nurses to reassess the patient's risk of falling

at each shift change, so that precautions can be adjusted quickly (Chien et al., 2022).

In addition, these results are in line with Jhonson's theory of behavior, which emphasizes behavioural balance, and nurses act to support and stabilize the behaviour of patients who are impaired by illness, including physical risks (Kamil & Tahlil, 2022). This means that bedside handover SBAR Establish the ability of nurses to restore the balance of the patient's behavioural system through structured and participatory communication, so that the nurse acts to support and stabilize the behaviour of patients impaired by illness, including physical risks. Nurses identify specific fall risks during bedside handover, and this includes evaluation of dependency and achievement behavior systems, where nurses ensure a safe environment. Other findings concluded that after the intervention, bedside handover SBAR greater contribution in increasing the reduction of patients' risk due to falls, this is in line with Johnsons' theory which views humans as a behavioural system that needs balance. (Kamil & Tahlil, 2022).

This means that Johnson's behaviour-based training and modules encourage nurses to look at bedside handover Not just a routine, but a nursing intervention to restore the patient's balance. Nurses are trained to focus on adaptive behaviours in ensuring that the bed railing is in place when handover SBAR. Johnson's training interventions and behavioural modules help nurses restructure traditional operants into bedside handover A more disciplined, protection-focused, and adaptive SBAR, which can create a safer and more scalable environment, directly

lowers the incidence of the patient's risk of falling.

CONCLUSION

The results of the analysis concluded that bedside handover SBAR had a positive and significant effect on 6 aspects of patient safety goals. SBAR bedside handover has been proven to improve nurses' ability to achieve 6 patient safety goals. The implication of this study is that it is suggested that organizations can provide regular training related to bedside handover SBAR with simulation-based training, where organizations should organize real clinical simulation sessions, where nurses practice SBAR at the patient's bedside to increase confidence and critical thinking skills. Organizations can provide training to nurses by actively engaging patients in handovers, which helps increase patient satisfaction and their involvement in safety. This study is limited to a small sample count, so it has fundamental weaknesses that can affect the validity and reliability of the results. Broadly speaking, the main disadvantage lies in the lack of population representation and low statistical power, so for follow-up research, it is recommended to use a larger sample, because it uses a large sample in the study on the effect of bedside handover with the SBAR method on patient safety goals because it has several crucial advantages, especially to increase the validity and reliability of the research results. Using a larger sample can reduce the chance of inference errors, even though they do. With large samples, studies were better able to detect small effects of SBAR interventions on patient safety goals such as reduced incidents, medication errors, or information omissions.

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