
ANALYSIS OF CHRONIC PATIENT MANAGEMENT WITH COMMUNICATION SBAR AND INTERPROFESSIONAL COLLABORATION (IPC)

Andriani Mei Astuti^{1*}, Arvind Bala Krishnan², Rovica Probawati³, Adi Buyu Prakoso⁴,
Insanul Firdaus⁵

Nursing Program, Faculty of Health Universitas Duta Bangsa Surakarta

*Correspondence [Email: andriani_meiastuti@udb.ac.id](mailto:andriani_meiastuti@udb.ac.id)

ABSTRACT

The occurrence of chronic diseases is a predominant challenge in global public health. Chronic diseases have a high incidence, to the 2021 study conducted by the Global Burden of Disease, chronic diseases, such as hypertension and diabetes, are included in the top five death risks in the world and are responsible for approximately 20% of global deaths. SBAR communication technique is the prioritized indicators for effective communication quality in patient safety goal (IPSG 2). Patient safety highly depends on medical team's action in decreasing unwanted incidence which can be prevented by increasing effective communication through socializing SBAR communication. The purpose was to analyze the effect implementation of SBAR communication in interprofessional collaboration (IPC) between doctors and nurses on patient safety. The research used quasi-experimental method with one group pretest-posttest design. The respondent were 35 nurses and 35 doctor specialists according to the inclusion criteria with purposive sampling. The research instruments were SBAR communication questionnaires. Validity Value with CVI=0.87 and reliability value with Cronbach's Alpha=0.62. Data was analyzed using Wilcoxon Test. The results showed that there was a difference significant score of prepost SBAR implementation between doctor and nurses $p=0.04$ ($p<0.05$). The result of the research showed that Mean Rank=18.00 from doctor specialist and nurses Mean Rank=18.00 which indicated that socializing SBAR communication could have significant change in mean rank value.

KEYWORDS

SBAR communication, patient safety, interprofessional collaboration



This work is licensed under a Creative Commons
Attribution-ShareAlike 4.0 International

INTRODUCTION

Describing the impact of patient safety on the quality of health services, side effects or unwanted things often occur. The occurrence of chronic diseases is a predominant challenge in global public health and Effective communication can majorly impact how patients and caregivers perceive their care (Schnipper et al., 2021). According to the 2021 study conducted by the Global Burden of Disease, chronic diseases, such as hypertension and diabetes, are included in the top five death risks in the world and are responsible for approximately 20 and 10% of global deaths. Based on data World Health Organization (WHO) shows that as many as 40.5 million (71%) of the 56.9 million global deaths in 2021 were due to noncommunicable disease. According to Australia National Prescription Service stated that in hospitals 6% of cases were found due to administration process errors and effects, this was due to the lack of collaboration between health professionals, Communication unefective interpersonal doctors and nurses (51%), hospital-not safety drugs abuse (38%) dan risk of falling (11%).

Based on data Committe Patient Safety Hospital (KKPRS) in 2022 health service errors in Indonesia were due to poor communication with a percentage of 70-80%. This causes medical errors, namely with the percentage distribution of 11% drug administration errors, 46% inappropriate drug use, and 54% drug prescribing errors and are the main cause of poor health, disability, and death and account for most healthcare expenditures (Putri et al., 2022). Patients with chronic diseases may experience negative emotions, such as depression. Many scholars have conducted related theoretical or empirical studies on the psychological status of patients with chronic diseases. Patients with chronic diseases such as hypertension, coronary heart disease, and diabetes have a high incidence of depression; depression and the cardiovascular risk are strongly correlated (Twary et al., 2022). People with multimorbid conditions are twice as likely to be depressed as people without multimorbidity. Related studies have confirmed that many patients with chronic diseases have mental disorders, such as depression, because of the long-term nature of the disease and its impact on quality of life (Asmaningrum & Afandi., 2022).

A 12-year longitudinal study on aging in Amsterdam concluded using covariate-adjusted Cox regression models concluded that the risk of developing depressive symptoms is substantial in non communication participants with elevated disease at base-line. Communication Effective can be to recommendation established the foundation for practitioners to practice skill caring with patient. This review is portion of the learning activity requires skill to patient safety of medical and nurses with courses to review components of an SBAR and its relevance to IPC (Müller et al., 2018). As the topics of SBAR and IPC, this activity provides a good opportunity to revisit this content and apply it in a new, clinically meaningful way. Interprofessional education and interprofessional collaboration (IPC) have become focal points of education in health recommendations for the patient's care. IPC work directly under the supervision or standing orders of care disciplines. Core Competencies that include working in interdisciplinary teams have become key factors in preparing future practices. Working within an interdisciplinary team requires health care providers to be ready for collaboration with team often serving as the key communication (Rifai et al., 2021).

Communication is an essential mechanism in collaboration and a key element in the success of organizations as it is present in practically all the processes carried out in a healthcare center and is an increasingly valued competence (Sri Krisnawati & Darma Yanti, 2023). However, despite its relevance, communication continues to be presented as a problem and a challenge at the care level and is still included as one of the objectives in the “National Patient Safety Goals” (NPSGs) and “International

Patient Safety Goals” (IPSGs). Communication with SBAR technique is the prioritized indicators for effective communication quality strategies for communication are needed to ensure team are ready to assume an active role on collaborative teams (Saragih & Novieastari, 2022). The educational technique presented in this article focuses on enhancing communication among doctor and nurses for interprofessional collaborative patient care to improve health in patient. Effective communication strategies have been introduced through the evidence-based framework. The strategy that is highlighted in the model is the situation, background, assessment and recommendation (SBAR) as outlined in this brief communication strategy helps members of an interprofessional care team clearly define components of a patient's presenting condition, pertinent history, professional conclusion, and ultimately provide a recommendation for the patient's care (Astuti et al., 2019).

The learning activity outlined in this article helps to meet the required curricular content standards for both disciplines. The delivery of patient information via SBAR has significant real-world application, as these disciplines collaborate to provide holistic patient care. The SBAR method has been used with positive results in increasing the quality of care received by the patient with improved management of the patient's condition, including anxiety, anger, and loneliness (Safitri et al., 2022). Additionally, SBAR is associated with a reduction in unexpected deaths and an increase in unplanned ICU admissions. In this regard, lack of communication is common in healthcare settings and is especially important in-patient transfers and in areas where fast and efficient management is needed. Despite the above, no studies have been found implementing the SBAR methodology within chronic diases units to improve the well-being of workers. Thus, the aim of this research is to evaluate the impact of the use of the SBAR method for improving communication on the degree of satisfaction, engagement, and resilience of healthcare staff in the internal medicine unit of a hospital.

RESEARCH METHOD

This research method is a quantitative research type with a quasi-experimental design using the One-Group Pretest-Posttest with non-control group design method. This research was conducted in the Tidar Magelang Hospital ward. The research sample was 37 nurses and 37 doctors. The sampling technique was purposive sampling. The inclusion criteria for nurses include; 1) willing to be respondents as evidenced by filling out an informed consent 2) Work period of more than 1 year. Criteria for doctors include; 1) willing to be respondents as evidenced by filling out an informed consent 2) Specialist doctors and 3) Not in the orientation period (new employees). The intervention carried out was the socialization of SBAR communication related to patient safety. Before and after the socialization, researchers measured patient safety with categories 1 = patient safety is said to be weak, if the value obtained is <90 and 2 = patient safety is said to be strong, if the value obtained is >90 . The validity test value of the patient safety questionnaire CVI = 0.87 and the reliability test value of Cronbach's Alpha 0.62. The instrument used is the SISBAR observation sheet in it related to the components of Greeting, Introduction, Situation, Background, Assessments, Recommendations and also the Documentation component. This research has been carried out with ethical clearance and approval from Tidar Hospital, Magelang.

RESULT AND DISCUSSION

Table 1. Sociodemographic descriptions of the sample nurses in the Dahlia Ward (n=35)

Karakteristik	f	%
Gender		
Man	7	20
Female	28	80
Age		
18 - 40	34	97,1
41- 60	1	2,9
Statification		
Assosiet	21	60
Nurses	10	28,6
Rn (Ners)	4	11,4
Years of Service		
5< tahun	10	28,6
6-10 tahun	19	54,3
>10 tahun	6	17,1
Patient Safety Training	10	28,6

Results Table 1. Demographic data on nurses with a total sample of 35 nurses, there are 28 female nurses (80%), the results of this study show the age range of nurses is between 18 and 40 years old as many as 34 nurses (97.1%). The majority of nurses' education in this study was a Diploma in Nursing with a percentage of 21 RNs (60%). The results of the length of service of nurses in this study show that the majority of nurses have worked for 6-10 years as many as 19 people (54.3%). Data related to patient safety training that nurses have attended show that minimal nurses have attended patient safety training 10 (28,6%). The results show that there is an increase in SBAR communication, this proves that SISBAR communication is better used than SBAR which was previously used.

Table 2. Sociodemographic descriptions of the sample doctors (n=35)

Karakteristik	f	%
Gender	16	45,7
Man	19	54,3
Female		
Age	14	40
18 - 40	21	60
41- 60		
Job Statification	35	100
Doctor	14	40
Years of Service	10	28,6
5< tahun	11	31,4
6-10 tahun		
>10 tahun	35	100
Patient Safety Training		

Table 2. Demographic data of doctors with a total sample of 35 doctors shows that the majority of specialist doctors are female, namely 19 specialist doctors (54.3%). The age range of specialist doctors is between 41-60 years old, as many as 21 specialist doctors (60%). The education of all doctors in this study was specialist doctors, as many as 35 people (100%), the range of specialist doctors' work periods in this study shows data of 14 specialist doctors (40%). Data related to patient safety training that doctors have attended show that all doctors have attended patient safety training, namely 35 (100%). The results show that there is an increase in SBAR communication, this proves that SISBAR communication is better used than SBAR which was previously used.

Table 3. Variations of the variables between the two interventions pre and post nurses

Patient Safety	<i>Pretest</i>		<i>Posttest</i>	
	f	%	f	%
weaknees	23	65,70	0	0
Strong	12	34,30	35	100
Mean $\pm$ SD	93,31 $\pm$ 11,54		131,43 $\pm$ 7,61	
Min-Max	80-123		120-144	

Table 3. The results of the pre-test measurement of SBAR communication socialization obtained weak results for 23 nurses (65.70%) and results with strong interpretation for 12 nurses (234.30%). Meanwhile, the results of the post-test SBAR socialization measurement obtained strong results for a total of 35 nurses (100%).

Table 4. Variations of the variables between the two interventions pre and post doctor

Patient Safety	<i>Pretest</i>		<i>Posttest</i>	
	f	%	f	%
weaknees	35	100		2,90
Strong	0	0	34	97,10
Mean $\pm$ SD	80,49 $\pm$ 7,64		125 $\pm$ 9,28	
Min-Max	55-89		88-146	

Table 4. Results of the pre-test measurement of SBAR communication socialization showed weak results for 35 specialist doctors (100%). The results of the post-test SBAR socialization measurement obtained strong results in 34 specialist doctors (97.10%) and results in the weak category were 1 respondent (2.90%).

Tabel 5.
 Different of result from patient safety *pretest* dan *posttest* with socialization

<i>Mean Rank</i>	<i>Sum of Rank</i>	<i>Z</i>	<i>p value</i>
18,00	630,00	-5,16	0,00

Table 5. The results of pre (Series 1) and post (Series 2) in the SBAR component in the Dahlia Ward with 35 nurses and doctor respondents, the observation results show that there is an increase in each component. the study obtained the average patient safety score after the SBAR communication socialization intervention on nurses showed a value in the intervention group with a Mean Reank value of 18.00, Sum of Rank 630.00, Z -5.161, p value 0.00 (<0.005). After that, can be concluded that there is a significant influence on the provision of SBAR communication socialization on doctor on patient safety and there is also a significant increase in the recommendation aspect from use of SBAR communication.

The aim of this study was to evaluate the impact of implementation of the SBAR method to improve communication on the degree of satisfaction, engagement, and resilience of healthcare staff in the internal medicine unit of a Tidar hospital in Magelang. Our results suggest that the SBAR intervention does to have a significant impact on job satisfaction values. A study conducted in an emergency department in the USA found an increase in job satisfaction among nurses after the implementation of SBAR together with other tools to improve teamwork, such as joint patient assessment and information sharing meetings (Saragih & Novieastari, 2022). Similarly, another study in Taiwan found an improvement in teamwork and job satisfaction among nurses after starting to use the SBAR method in a maternity ward (Haddeland et al., 2022). Regarding the relationship with socio-demographic variables, in our analysis, communication was affected only by professional category, with the group of doctors scoring significantly higher than nurses or auxiliary nursing care technicians in the pre-intervention. These inequalities are reduced in the post-intervention, as no significant difference is obtained. Nurses has a role in implementing interprofessional collaboration on. Based on the observations that have been made, it is found that there are 10 nurses who have attended training related to IPC, and are still not available clinical pathway (CP) for chronic patients which can be used as a guideline in providing interprofessional collaborative actions (Marthinsen et al. 2022). Based on Apriani's research (2022) states that a clinical pathway is a guideline for carrying out evidence- based clinical action in health services. Besides that, clinical pathways can be used as a tool for coordination and communication between professions involved in managing the same patient. the function of the clinical pathway, namely to ensure that no important aspects are forgotten in providing patient care and ensure that all interventions are carried out promptly by encouraging health workers to be active in planning services (Nurliawati and Idawati, 2019). This activity can also project patient services in accordance with the respective professional code of ethics (Khoiroh et al, 2020). In providing drug therapy, nurses collaborate with doctors regarding drug prescriptions given according to the patient's condition, and pharmacists to prepare drug concoctions according to a doctor's prescription. The nurse's job is to provide medicine directly to the patient by applying the six correct drug administration and medication administration procedures in the hospital (WHO, 2021).

The implementation of drug administration by applying the six correct drug principles aims to minimize the occurrence of medication errors (Mainet al., 2021). Nurses must carry out the application of these principles as a form of ethical and legal responsibility for the interventions provided by existing standard operating procedures (SOPs). Double check with other nurses needs to be done to prevent medication errors. Besides that what needs to be done is to re-check the patient's identity with at least two identities before carrying out pharmacological therapy (Septiyaningsih and Septiana, 2020). To improve the implementation of interprofessional collaboration so that it runs optimally, it is necessary to evaluate the implementation that has been carried out. Based on the observation that there are no nurses who have attended training related to IPC, it is necessary to have facilities from the hospital to conduct IPC training for all health workers. According to Mawani (2019) states that the way to optimize the implementation of collaboration between professions is that the hospital can hold integrated activities or training to improve good cooperative relations between professions (Kharisma et al., 2023).

The intervention was carried out by involving 35 nurses and 35 specialist doctors. It was found that the average value (mean) of nurses before the SBAR socialization was 93.31 and after the SBAR socialization showed a significant increase in the average value (mean) of 127.40 with a p value of 0.000. Meanwhile, the SBAR socialization intervention on patient safety carried out on 35 specialist doctors showed the results of the average value (mean) before the SBAR socialization was 80.49 and after the SBAR socialization showed a significant increase in the average value (mean) of 125.00. This shows that the SBAR socialization action carried out can have an impact on changing the mean value (average) which is then also proven statistically using the Wilcoxon Sign Rank Test with $p = 0.00$ ($p < 0.05$), so it can be concluded that There is an influence of SBAR communication socialization on patient safety at Tidar Hospital. The use of SBAR (Situation, Background, Assessment, Recommenda- tion) communication which is by the standards set by WHO, by describing the four elements in it, namely Situation which describe what is happening at this time, Background which explains the background of related circumstances, Assessment describes an assessment of a problem that arises, then Recommenda- tion, which is an appropriate action or recommendation for action that should be taken to overcome this problem (Safitri et al., 2022). In our study, it stands out that nursing staff was the professional group with the highest resilience values in the sample, which coincides with Lyu et al. (2023) who obtained very high levels of resilience among frontline nurses in the fight against chronic diases. This is particularly relevant given the key role resilience plays in the occupational well-being of professionals (Schnipper et al. 2023). As resilience is the most powerful tool for improving levels of engagement, which is in agreement with another study that shows a significant and positive relationship between resilience and engagement, dedication, concentration, and energy at work.

CONCLUSION (12 pt)

The levels of all variables studied after the implementation of the SBAR method, the levels of resilience increased considerably among the staff. After obtaining these results, The nursing professional group it should be a priority to ensure the correct implementation of the SBAR method, assessing whether its use by workers is adequate and considering that SBAR is frequently studied in conjunction with strategies to facilitate its implementa- tion, elements that could be improved. Another priority task

would be to assess whether there were any major stressors during the intervention year that may interfere with the introduction of SBAR. In this respect, it is worth noting that the lowest rated items of the post-intervention job satisfaction scale were related to the organizational environment of the hospital. In addition, the demographic analysis of the sample showed a very significant decrease in the percentage of professionals with a permanent employment contract in the post-intervention period compared to the pre-intervention period, an issue that coincides with the precariousness of the sector that has taken place in recent years, with the consequences that this entails for the health and well-being of the workers.

REFERENCES (12 pt)

- Afandi, A. T., Putri, P., Darmawan, T. C., & Ardiana, A. (2023). Komunikasi Terapeuti Perawat Dengan Tingkat Kecemasan Pasien dalam Tata laksana Manajemen DiRumah Sakit. *Jurnal Keperawatan*, 12(1), 56-63.
- Asmaningrum, N., & Afandi, A. T. (2022). Nurse's Viewpoint of Gatekeeper Function on Managing Indonesian National Health Insurance: A Qualitatif Study. *Nursing and Health Science Journal (NHSJ)*, 2(2), 108- 117.
- Astuti, N., Ilmi, B., & wati, R. (2019). Penerapan Komunikasi Situation, Background, Recommendation (SBAR) Pada Perawat Dalam Handover. *IJNP (Indonesian Journal of Nursing Practices)*, 3(1), 42–51. <https://doi.org/10.18196/ijnp.3192>
- Chua, W. L., Legido-Quigley, H., Jones, D., Hassan, N. B., Tee, A., & Liaw, S. Y. (2019). A call for better doctor–nurse collaboration: A qualitative study of the experiences of junior doctors and nurses in escalating care for deteriorating ward patients. *Australian Critical Care*, (xxxx). <https://doi.org/10.1016/j.aucc.2019.01.006>
- Fauzi, A., Putri, P., & Afandi, A. T. (2022). The Relationship Of Vital Signs With Gcs Of Stroke Patients. *Jurnal Keperawatan Malang*, 7(1), 89-103.
- Haddeland, K., Marthinsen, G. N., Söderhamn, U., Flateland, S. M. T., & Moi, E. M. B. (2022). Experiences of using the ISBAR tool after an intervention: A focus group study among critical care nurses and anaesthesiologists. *Intensive and Critical Care Nursing*, 70(May 2021). <https://doi.org/10.1016/j.iccn.2021.103195>
- Hariyanto, R., Hastuti, M. F., & Maulana, M. A. (2019). Analisis Penerapan Komunikasi Efektif Dengan Tehnik Sbar (Situation Background Assessment Recommendation) Terhadap Risiko Insiden Keselamatan Pasien Di Rumah Sakit Anton Soedjarwo Pontianak. *Jurnal ProNers*, 4(1). <https://jurnal.untan.ac.id/index.php/jmkeperawatanFK/article/view/34577>
- Kane, P., Marley, R., Daney, B., Gabra, J. N., & Thompson, T. R. (2019). Safety and Communication in the Operating Room: A Safety Questionnaire After the Implementation of a Blood-Borne Pathogen Exposure Checkpoint in the Surgical Safety Checklist Preprocedure Time-Out. *The Joint Commission Journal on Quality and Patient Safety*, 45(10),662–668.<https://doi.org/10.1016/j.jcjq.2019.07.004>

- Khoiroh, S. A., Rifai, A., & Afandi, A. T. (2020). Nurse ethical dilemmas in inpatient ward of baladhika husada hospital jember. *Journal of Nursing Science Update*, 8(2), 121-128.
- Müller, M., Jürgens, J., Redaelli, M., Klingberg, K., Hautz, W. E., & Stock, S. (2018). Impact of the communication and patient hand-off tool SBAR on patient safety: A systematic review. *BMJ Open*, 8(8).
- Putri, P., Afandi, A. T., & Rizal, Y. S. (2022). Exploration of Nurse Knowledge with Splints on Fracture Patients in Hospitals. *D'Nursing and Health Journal (DNHJ)*, 3(1), 1-9.
- Safitri, W., Suparmanto, G., & Istiningtyas, A. (2022). Analisis Metode Komunikasi Sbar (Situation, Background, Assesment, Recomendation) Di Instalasi Gawat Darurat. *Jurnal Kesehatan Kusuma Husada*, 13(2), 167–174. <https://doi.org/10.34035/jk.v13i2.845>
- Saragih, A. M. L., & Novieastari, E. (2022). Optimalisasi Penerapan Komunikasi SBAR saat Serah Terima Pasien antar Shift Keperawatan. 6(3), 36–43.
- Schnipper, J., Fitall, E., Hall, K. K., & Gale, B. (2021). Approach to Improving Patient Safety : Communication. Patient Safety Network. <https://psnet.ahrq.gov/perspective/approach-improving-patient-safety-communication#>
- Sri Krisnawati, K. M., & Darma Yanti, N. P. E. (2023). Gambaran Pengetahuan Mengenai Teknik Komunikasi SBAR Pada Perawat Dalam Handover. *Jurnal Keperawatan*, 15(1), 221–226.
- Tiwary, A., Rimal, A., Paudyal, B., Sigdel, K. R., & Basnyat, B. (2019). Poor communication by health care professionals may lead to life- threatening complications: Examples from two case reports. *Wellcome Open Research*, 4, 1–8. <https://doi.org/10.12688/wellcomeopenres.15042.1>
- World Health Organization. (2021). Conceptual Framework for the International Classification for Patient Safety. https://apps.who.int/iris/bitstream/handle/10665/70882/WHO_IER_PSP_2021.2_eng.pdf