



# The Effect of Handover Training on Nurses' Communication Skills at Pembinaan Kesejahteraan Umat Muhammadiyah Surakarta

Fivin Sari Titik Purwanti Ningrum<sup>1</sup>, Supratman Supratman<sup>1\*</sup>, Faizah Betty Rahayuningsih<sup>1</sup>

<sup>1</sup>Nursing Study Program, Faculty of Health Sciences, Muhammadiyah University of Surakarta, Indonesia

Email correspondence : [sup241@ums.ac.id](mailto:sup241@ums.ac.id)

<p><b>Track Record Article</b></p> <p>Accepted: 28 February 2024 Revised: 04 March 2024 Published: 25 March 2024</p> <p><b>How to cite :</b> Ningrum, F. S. T. P., Supratman, S., &amp; Rahayuningsih, F. B. (2024). The Effect of Handover Training on Nurses' Communication Skills at Pembinaan Kesejahteraan Umat Muhammadiyah Surakarta. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 6(1), 526-535.</p>	<p style="text-align: center;"><b>Abstract</b></p> <p><i>Patient admissions help nurses identify service areas to improve patient safety Patient admissions help nurses identify service areas to improve patient safety. Effective communication between nurses and patients is very important in providing quality services. Inaccurate information can have a serious impact on patients, incidents are caused by poor communication, less than optimal communication. The aim of this research was to determine the effect of consideration training on nurses' communication skills in the inpatient room at the Surakarta Muhammadiyah Ummah Welfare Development Hospital. This research uses a pre-experimental research method with one group pretest-posttest. The research sample was nurses who worked in inpatient rooms. Sampling was taken through purposive sampling, with the inclusion criteria of nurses with 1 year of work experience. The instruments used were a consideration and acceptance questionnaire adopted from Payne as well as a consideration and acceptance implementation checklist quoted from Parke &amp; Mishkin. Data analysis used the Paired Sample-T test with a significance level of 5%, CI-95% confidence interval. The analysis results indicate that there is no significant difference in communication skills before and after the training (p=0.083). Handover training activities have no effect on nurses' communication skills, and they do not significantly improve the quality of nurses' communication abilities in the inpatient ward. Several things that can be recommended include a commitment to carry out considerations in the form of policies, direction and evaluation of the implementation of considerations, for the sake of continuity of nursing care which has an impact on increasing nurses' communication skills in implementing patient safety as well as adding samples to ensure sample representation in further research and optimize patient admission training by providing strict sanctions for nurses who do not carry out patient admission procedures.</i></p> <p><b>Keywords:</b> <i>Communication, Handover, Nursing, Skills, Training</i></p>
---	---

## INTRODUCTION

The quality of a hospital's services is closely related to the quality of nursing services, considering that nurses are the largest human resource who interact directly with patients (Yusefi et al, 2022). Patient safety has been a source of recent discussion, in Brazil and internationally, mainly because of its importance to the health system and its impact on society in general (Lawati et al, 2018). Effective communication between health workers reduces the occurrence of errors and this supports patient safety because the consequences of communication errors can result in significant patient care errors that can damage the continuity of service and quality of service. Communication failure threatens patient safety, especially when services are handed over from one health worker to another (Gluyas H, 2015).

One aspect of the quality of service in a hospital can be reflected through the handover carried out by nurses. Handover plays a role of 80% in causing medical errors (Sujan et al, 2015). Ineffective handovers can lead to a variety of patient-related problems, such as care

errors and safety violations, including medication errors, surgical errors, and even patient death. This problem is a major concern that can be monitored through handover activities. The information transferred relates to the patient's clinical condition, needs, personal circumstances and social aspects. The goal is to convey information effectively and ensure effectiveness and safety in patient care. It is important to improve the quality of handover implementation in order to minimize incidents that could harm patients (Marsden J, 2015).

Previous research regarding the influence of communication during handover to identify errors that occur in hospital services has not been carried out much. Nurses' understanding is still less than optimal (20%) regarding the importance of consideration as a first step, resulting in errors in implementing patient safety (Eggins, S & Slade, D, 2015). Therefore, action is needed to increase nurses' knowledge and skills regarding considerations in implementing patient safety. Increasing the ability to receive and receive patients can be done through development activities, such as providing effective patient weighing training (Noviyanti et al, 2021)

We decided to conduct research at the Surakarta Community Welfare Development Hospital for various reasons. We found that in hospitals there are many problems in implementing patient safety programs. Although patient safety programs have been implemented, they have not been optimal in increasing compliance with standards and procedures. Once again, communication and related documentation are still not going well, this can be seen from the high percentage of adverse events of 29%, near-injury incidents of 20%, and non-injury incidents of 61%. In fact, good communication during patient handover, as a first step to identify service errors and as a solution to patient safety, has not been implemented optimally. Nurses' understanding (20%) is still less than optimal regarding the importance of consideration as a first step, resulting in errors in implementing patient safety.

In practice, nurse handover performance shows little improvement over observation-focused clinical training. Thus, nurses must have the opportunity to understand the patient's condition thoroughly and convey details of nursing practice through handover training. Several studies have shown that inadequate or poor communication between healthcare providers is one of the preventable causes of patient injuries in healthcare facilities (Bakon S, 2017). This year's research stated that 62.6% of nurses still had minimal experience in handover activities. Additionally, most examples of handover education for new nurses simply consist of observing a fellow nurse's handover or learning from their senior nurse through simple verbal instructions. This resulted in reported difficulties in new nurses' handover performance for assigned patients.

Therefore, it is necessary to improve the current nursing education system and develop educational programs to bridge the gap in nurse training (Raeisi A et al, 2019).

## METHODS

This research used a pre-experimental design with a one group pretest and posttest approach. The intervention in this study was shift assignment handover training (handover). Handover training is part of nurse management and leadership training in hospitals. The training in this research is a hospital management refresher program to improve nurses' skills and abilities. This training uses lecture and demonstration methods. The demonstration aims to see the abilities and skills of nurses in carrying out shift handover. Aspects of the training material are consideration techniques and effective communication with nurses. The nurses involved in the training were 100 nurses . Nurses involved in the training were selected using purposive sampling with the criteria of inpatient room nurses, work experience of at least one year, willing to take part in the training until completion. Training will be held on October 19 2023 from 08.00 to 17.00. Measurement of communication variables before training was carried out on October 18 2023. The questionnaire used to measure communication variables was a weighing questionnaire and a checklist for carrying out weighing (Payne, 2008, Parke & Mishkin, 2005). The nurse's ability to convey information clearly, effectively and empathetically to patients, the patient's family and members of the health team in the process of handing over/admitting patients to the inpatient unit. The communication variable was measured again after the training, namely on October 30 2023. Statistical analysis using SPSS 10 . Analysis to measure communication variables using the Paired sample T-test with an alpha significance level of 5% and a CI-95% confidence interval.

## RESULTS

### Respondent Characteristics

#### 1. Characteristics of Respondents Based on Age

**Table 1. Characteristics of Respondents Based on Age (N = 45)**

	<b>Treatment Group</b>	<b>Control Group</b>
Minimum	25	24
Maximum	55	53
Average	32.67	33.80
Standard Deviation	5,858	7,137

Based on the age characteristics of the respondents, the treatment group had a mean and standard deviation value of  $32.67 \pm 5.858$  with the lowest value being 25 and the highest

value being 55, for the control group respondents' age the mean value and standard deviation was  $33.80 \pm 7.137$  with the lowest value obtained. of 24 and the highest value of 53.

## 2. Characteristics of Respondents Based on Gender

**Table 2. Characteristics of Respondents Based on Gender (N = 45)**

Gender	Treatment Group		Control Group		Total	
	n	%	n	%	N	%
Man	7	15.6	11	24.4	18	20
Woman	38	84.4	34	76.4	72	80
<b>Total</b>	<b>45</b>	<b>100.0</b>	<b>45</b>	<b>100</b>	<b>90</b>	<b>100</b>

Based on the gender characteristics of respondents in both the treatment and control groups, there were more female respondents than male respondents.

## 3. Characteristics of Respondents Based on Length of Work

**Table 3. Characteristics of Respondents Based on Length of Work (N = 45)**

	Treatment Group	Control Group
Minimum	1	1
Maximum	30	29
Average	7.68	10.18
Standard Deviation	6,270	6,713

Based on the characteristics of the work period of respondents in the treatment group, the mean and standard deviation value was  $7.69 \pm 6.270$  with the lowest value being 1 and the highest value being 30. For the work period of respondents in the control group, the mean value and standard deviation was  $10.18 \pm 6.713$  with the lowest score obtained. is 1 and the highest score is 29.

## 4. Characteristics of Respondents Based on Last Education (N = 45)

**Table 3. Characteristics of Respondents Based on Education (N = 45)**

Education	Treatment Group		Control Group		Total	
	n	%	n	%	N	%
D3 Midwifery	2	4.4	1	2.2	3	3.3
D3 Nursing	27	60.0	40	68.9	67	74.4
Bachelor's Degree in Nursing	5	11.1	2	4.4	7	7.8
Bachelor's Degree in Nursing	11	24.4	2	4.4	13	14.4
<b>Total</b>	<b>45</b>	<b>100</b>	<b>45</b>	<b>100</b>	<b>90</b>	<b>100.0</b>

Based on the current educational characteristics of respondents in both treatment and control groups, respondents with a D3 Nursing education were more dominant.

The results of the research include several parts, including a description of the treatment group communication variables and analysis of mean difference tests before and after training. The results of the complete descriptive analysis of communication variables are presented in table 5. Meanwhile, table 6 presents the results of the analysis of differences in communication variables before and after training.

**Table 4. Description of communication variables before and after training**

	Treatment Group	
	Pre-Test	Post Test
Minimum score	27	32
Maximum score	43	44
Average	35.53	36.71
Standard Deviation	2,322	2,668

*Primary data: Processed data*

Based on the results of the univariate test on the pre-test data for the treatment group above, the mean value and standard deviation were obtained at  $35.53 \pm 2.322$  with the lowest value at 27 and the highest at 43, while the post-test data for the treatment group obtained a mean value and standard deviation at  $36.71 \pm 2.668$ . with the lowest value of 32 and the highest of 44.

**Table 5. Analysis of differences in communication abilities**

Treatment	Method	Std. Dev.	Z	signature	Decision
Pre-Test	35.53	2,322	-1,734	0.083	Does not mean
Post Test	36.71	2,668			

*Data source: Processed data*

The differences in nurses' communication skills variables can be seen in table 2. Based on the results of statistical tests using the Wilcoxon sign test, a p value of 0.083 was obtained, so it was concluded that nurses' communication skills before and after handover training had a good influence. no effect. significantly different.

## DISCUSSION

### Differences in Nurse Communication Skills Before and After Patient Weighing Training in the Inpatient Room at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital, Surakarta

In the treatment group, there was no difference in nurses' abilities before and after the patient reception training treatment in the inpatient room at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital, Surakarta. Handover or handover or often called operant is a technique or method for conveying and receiving a report relating to a patient. These considerations must be carried out as effectively as possible by explaining briefly, clearly and distinctly the nurse's independent actions, collaborative actions, those that have been completed and those that have not been carried out as well as the patient's progress at that time. The

information conveyed must be truly accurate and continuous so that nursing care can run perfectly (Nursalam, 2017).

Shahid & Thomas (2018) the handoff or handover process is a communication process involved in exchanging patient information between all health workers, especially nurses during shift changes, which is an element in ensuring the provision of continuous care and patient safety. More, Lucy Pilcher (2015) Clinical handover is an important aspect of clinical communication, described as the transfer of professional responsibility and accountability for some or all aspects of the care of a patient, or group of patients, to another person or group of professionals on a temporary or permanent basis.

In Seoul, Korea, education is carried out with the help of simulations in assessing patient acceptance. A simulation-based program, it allows students to experience the problem-solving process while gaining theoretical knowledge. This helps them practice in a realistic environment, thereby improving their communication skills and independence (Norman, 2016, in Lee & Lim, 2021). This simulation education involves expert nurses who have more than 10 years of experience in the nursing field. Technically, nurses who take part in patient acceptance education pay attention to the simulation shown by an expert nurse, then practice it in the next simulation and then apply it in nursing work. Lee & Lim (2021) . found the results of research in Seoul Korea that patient acceptance education using simulation was able to improve nurses' communication in carrying out their nursing duties both individually and in groups.

### **Differences in Communication Skills of Control Group Nurses in the Inpatient Room at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital, Surakarta**

In the control group, there was no difference in nurses' abilities before and after the patient reception training treatment in the inpatient room at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital, Surakarta. The handoff or handover process is a communication process involved in exchanging patient information between all health workers, especially nurses during shift changes, which is an element in ensuring the provision of continuous care and patient safety (Blazin et al, 2020).

The results of research in Korea show that only 8.4% of all respondents admitted to having received handover education as a component of official courses in the form of lectures, training sessions and standard educational materials. In addition, 77.4% of small and medium hospitals do not have guidelines or checklists regarding nurse handover. Thus, the absence of systematic handover education in nursing education indicates the need for university education for handover (Yon Hee Seo., et al, 2023).

Nursing handover practices show little improvement over observation-focused clinical training. Thus, nurses must have the opportunity to understand the patient's condition thoroughly and convey details of nursing practice through handover training. This resulted in reported difficulties in new nurses' handover performance for assigned patients. Therefore, it is necessary to improve the current nursing education system and develop educational programs to bridge the gap in nurse training (Lee & Lim, 2021) .

Syamim's Research Results (2017) suggests that poor communication processes create opportunities for error when caregivers fail to transfer complete and consistent information. Inadequate or nonexistent clinical handover or failure to transfer information, responsibility, and accountability can have dire consequences for hospitalized patients.

The results of Nababan's (2023) research on nurses show that having a disciplined attitude in carrying out handover activities effectively as a provider of nursing services can prevent patient safety incidents and is useful in improving the quality of management in hospital services.

Mamalelala's (2023) research results show that ER and ICU nurses have significantly different requirements and expectations regarding handover procedures. In addition to complete documentation, subtle interpretations of information provided and received also impact requirements. ER and ICU nurses need to agree on the content of a structured handover framework because different specialties and departments have different expectations for achieving an effective handover.

### **Differences in Communication Skills of Inpatient Room Nurses at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital Surakarta, Treatment and Control Groups**

The results of the study showed that there was no significant difference in the communication skills of nurses in the treatment group and the control group. Communication during handover of duties (overload/consideration) between nurses requires clear communication regarding patient needs, interventions that have and have not been implemented, as well as responses that occur in patients. Nurses carry out patient admission checks together with other nurses by going around to each patient and conveying the patient's condition accurately to those closest to the patient. Because this method is considered more effective and helps nurses in receiving excess payments/considerations (Nursalam, 2017).

The Joint Commission on Accreditation of Health Service Organizations WHO (2007) considers effective communication to be an important aspect in patient care to ensure patient safety, as a strategy to reduce unexpected events (KTD), near-miss events. program). KNC) as

well as sentinel events. Joint Commission on Accreditation of Health Care Organizations". establishes effective communication as the second of six national safety goals. The WHO Collaborating Center for Patient Safety on May 2, 2007 published the guide "Nine Patient Safety Solutions that Save Lives" (Nine patient safety solutions in hospitals), one of the systems or interventions is correct communication when the patient enters (Kemenkes RI, 2008) .

Jack Pun Research Results (2021) shows that during handover practices, communication is the most important component in human interaction and is necessary for the transfer of information from the sender to the recipient. However handovers were inconsistent across hospitals and junior nurses were sometimes not given the necessary support and supervision, due to patient acuity and a shortage of nurses in units. There is no structured handover tool to ensure that the process is formalized for all nurses in the Intensive Care Unit to follow. Nurses' perceptions and communication skills impact clinical handover capabilities.

Tools are needed to improve nurse communication in conducting handoffs. In Malaysia SBAR (Situation, Background, Assessment and Recommendations) was proposed to facilitate the collection, organization and exchange of information between health workers, while providing an approach to strengthen teamwork. This SBAR communication tool starts from the Situation which emphasizes the main reason for hospitalization, followed by the Background which states the patient's history such as history of previous treatment or surgery, any allergies, previous treatment and so on (Geok., et al, 2021). Meanwhile, the assessment is the part where the patient's current condition will be mentioned in detail, while recommendations will be prepared based on a summary of the assessment findings in accordance with the patient's treatment plan.

Tataei's (2023) research results show that the use of ENHS significantly improves the quality and efficiency of shift handover, reduces the possibility of clinical errors, saves handover time, and ultimately improves patient safety compared to paper-based methods. The results of the study also showed positive views of ICU nurses regarding the positive effects of ENHS on improving patient safety.

## **CONCLUSION**

The research results showed that there was no significant influence between nurses' communication skills before and after weighing training in the Inpatient Room at Pembinaan Kesejahteraan Umat Muhammadiyah Hospital, Surakarta. Based on these results, several things that can be recommended include a commitment to carry out considerations in the form



of policies, direction and evaluation of the implementation of considerations, for the sake of continuity of nursing care which has an impact on increasing nurses' communication skills in implementing patient safety as well as adding samples to ensure sample representation in further research and optimize patient admission training by providing strict sanctions for nurses who do not carry out patient admission procedures.

## REFERENCE

- Bakon, S., Wirihana, L., Christensen, M., & Craft, J. (2017). Nursing handovers: An integrative review of the different models and processes available. *International journal of nursing practice*, 23(2), 10.1111/ijn.12520. <https://doi.org/10.1111/ijn.12520>
- Blazin, L. J., Sitthi-Amorn, J., Hoffman, J. M., & Burlison, J. D. (2020). Improving Patient Handoffs and Transitions through Adaptation and Implementation of I-PASS Across Multiple Handoff Settings. *Pediatric quality & safety*, 5(4), e323. <https://doi.org/10.1097/pq9.0000000000000323>
- Eggins, S., & Slade, D. (2015). Communication in Clinical Handover: Improving the Safety and Quality of the Patient Experience. *Journal of public health research*, 4(3), 666. <https://doi.org/10.4081/jphr.2015.666>
- Da-Hye Lee. 2021. The Effect of a Simulation-Based Handover Education Program on Nursing Students: Quasi-Experimental Design. *Int J Environ Public Health* 18(11). <https://doi.org/10.3390/ijerph18115821>
- Gluyas H. (2015). Effective communication and teamwork promotes patient safety. *Nursing standard (Royal College of Nursing (Great Britain) : 1987)*, 29(49), 50–57. <https://doi.org/10.7748/ns.29.49.50.e10042>
- Hanley -Gumbs, J. (2019). Handoff communication among senior nursing students: a phenomenological study. Retrieved from: [https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1069&context=hpd\\_con\\_stuet](https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1069&context=hpd_con_stuet)
- Hunter, 2017; Mulberry, 2018; Campbell & Dontje, 2019. Implementing Bedside Handoff in the Emergency Department: Practice Improvement Project. *Journal of Emergency Nursing*, 45(2)
- Jack Pun. 2021. Factors associated with nurses' perceptions, their communication skills and the quality of clinical handover in the Hong Kong context. *BMC Nurs*, 20(1): 95. doi: 10.1186/s12912-021-00624-0.
- Lawati, M. H. A., Dennis, S., Short, S. D., & Abdulhadi, N. N. (2018). Patient safety and safety culture in primary health care: a systematic review. *BMC family practice*, 19(1), 104. <https://doi.org/10.1186/s12875-018-0793-7>
- Lee, D.H., & Lim, E.J. (2021). Effects of a simulation-based handover educational program for nursing students: A quasi-experimental design. *International Journal of Environmental Research and Public Health*, 18(11). <https://doi.org/10.3390/ijerph18115821>
- Lucy Pilcher. 2022. Midwifery shift-to-shift handover in Kerala, India: A cross-sectional mixed methods study. *PLOS ONE*, 17(5). <http://dx.doi.org/10.1371/journal.pone.0268239>
- Mamalelala Tebogo T, Shelley Schmollgruber, Meghan Botes & William Holzemer. 2023. Effectiveness of handover practices between emergency department and intensive care unit nurses. *African Journal of Emergency Medicine* 13 (2023) 72–77.
- Marian Smeulers, Cees Lucas, and Hester Vermeulen. (2021). The effectiveness of different nursing handover styles to ensure continuity of information in inpatients. *PubMed*

- Central. doi: 10.1002/14651858.CD009979.pub2.
- Marsden J. (2015). Keeping patients safe: a practical guide. *Community eye health*, 28(90), 23–25.
- Kementerian Kesehatan RI. 2008. Indonesian Health Profile 2007. Jakarta: Indonesian Department of Health Jakarta.
- Nababan Dosmaida, Tumpal Manurung & Yemima Sipahutar. 2023. The Relationship between Organizational Climate and Nurse Handover of Patient Safety Incidents at Porsea Hospital. *International Journal of Health, Engineering and Technology (IJHET)*. Volume 2, Number 2, July 2023, Pages. 87 - 96.
- Nursalam. 2017. *Nursing Management: Applications in Professional Nursing Practice* (5th Edition). Jakarta: Salemba Medika.
- Parke, B., & Mishkin, A. (2005). Best practices in shift handover communications: *exploration mars rover surface operations* .
- Raesi, A., Rarani, M. A., & Soltani, F. (2019). Challenges of patient handover process in healthcare services: A systematic review. *Journal of education and health promotion*, 8, 173. [https://doi.org/10.4103/jehp.jehp\\_460\\_18](https://doi.org/10.4103/jehp.jehp_460_18)
- Shahid, S., & Thomas, S. (2018). Situation, Background, Assessment, Recommendation (SBAR) Communication Tool for Handoff in Health Care – A Narrative Overview. *Safety in Health*, 4(1), 1–10. <https://doi.org/10.1186/s40886-018-0073-1>
- Shamim, A., Haq, A., & Ali, M. (2017). Prevalence of peripheral diabetic neuropathy and its association with patient-related factors. *Pakistan Journal of Medical and Health Sciences*, 11(3), 1130–1132.
- Sugiyono, *Educational Research Methods Quantitative, Qualitative and R&D Approaches* (Bandung: Alfabeta, 2015), 110-111.
- Sujan, M., Spurgeon, P., Cooke, M., Weale, A., & O'Connor, E. (2015). Factors influencing the occurrence of errors in health care: a conceptual framework. *International Journal of Quality in Health Care*, 27(4), 317-326. doi:10.1093/intqhc/mzv039.
- Swee Geok Lim, Choo Zhien Jou & Cindy Lim Lye Imm. 2021. Nurses' satisfaction with the use of SBAR as a handoff communication tool in Penang Private Hospital. *Malaysian Nursing Journal*. 12(4). DOI:10.31674/mjn.2021.v12i04.01
- Tatae Azadeh, Bahlol Rahimi, Hadi Lotfnezhad Afshar, Vahid Alinejad, Hossein Jafarizadeh & Naser Parizad. 2023. Effect of electronic nursing handover on general patient safety (non-COVID-19) and COVID-19 care units: a quasi-experimental study. *Tataei et al. BMC Health Services Research* (2023) 23:527.
- Thinesa, D., Arif, Y., & Murni, D. 2020. Factors Associated with the Implementation of Nursing Handover. *Journal of Endurance: Scientific Study of Health Problems*, 5(3), 448-457.
- WHO. (2019). *Diabetes Mellitus Classification 2019*. <https://apps.who.int>
- Wieke Noviyanti, L., Ahsan, A., & Sudartya, T. S. (2021). Exploring the relationship between nurses' communication satisfaction and patient safety culture. *Journal of public health research*, 10(2), 2225. <https://doi.org/10.4081/jphr.2021.2225>
- Yon Hee Seo, Kyeongmin Jang and Jung-Won Ahn. 2023. The Effect of Handover Education Using the Outcome-Present State Test (OPT) and the SBAR Model on Nursing Students: A Quasi-Experimental Design. *Iranian J Public Health*, 52(6): 1140 – 1149. <https://doi.org/10.18502%2Fijph.v52i6.12956>
- Yusefi, A. R., Sarvestani, S. R., Kavosi, Z., Bahmaei, J., Mehrizi, M. M., & Mehralian, G. (2022). Patients' perceptions of the quality of nursing services. *BMC nursing*, 21(1), 131. <https://doi.org/10.1186/s12912-022-00906-1>