

# **Bedside Handover as an Effort to Improve Nurses' Communication in Providing**

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## **ABSTRACT**

This study was conducted solely on nurses, and to achieve optimal results, all PPA should have been involved. The bedside handover method is a standard nursing care handover system in hospitals designed to foster quality interaction and communication between patients and nurses, resulting in effective and efficient nursing care. This study examined the effectiveness of bedside handovers in enhancing nurse communication using a nonequivalent control group pretest–posttest design. A total of 64 nurses were included through total population sampling. The intervention group implemented bedside handovers, whereas the control group conducted handovers at the nurse station. Nurse communication levels were assessed using a questionnaire administered before and after the intervention. Changes in communication levels within each group were analyzed using the Wilcoxon test. The findings revealed a significant improvement in nurse communication in the intervention group ( $p = 0.000$ ), while no significant change was observed in the control group ( $p = 0.082$ ). Conclusion: Bedside handovers are effective in improving nurse communication in providing nursing care. This research has an impact on patient satisfaction, nurses and reduces the number of adverse events.

**Keywords:** bedside handover, nurse communication, nursing care

## **INTRODUCTION**

Handover is defined as a structured process encompassing the communication of information and the transfer of professional responsibility and accountability related to all components of client care, either temporarily or permanently. Handover is a routine activity carried out by nurses during shift changes to ensure continuity of care. Literature studies indicate that handover accuracy directly impacts patient safety and service quality. Considering the handover process to improve patient safety requires specific attention due to the potential for misinterpretation of communication and its consequences, which will impact patient satisfaction and safety (Ghosh et al., 2021; Malfait et al., 2020).

Research by Ghosh et al. (2021) states that the impacts of not performing bedside handover include: Increased risk of patient information errors, compromised patient safety, less effective communication among the healthcare team, patients feeling unininvolved in their care, decreased patient satisfaction. Based on the results of a nursing audit on handover compliance using the

SBAR technique from 2020 to 2023, the average score was 80.6%. However, several findings indicated that the patient handover process did not include important information about patient safety and security, such as prevention of mistaken identity, infection control, and fall prevention. Nurses did not evaluate these aspects during the bedside handover.

Consequently, many PPJP complain about miscommunication and miscommunication during care delivery, including patients' wristbands not being attached, which can lead to mistaken identity, the patient's siderails not being attached, the fall risk bracelets and yellow triangles not being attached, the patient's invasive device being misplaced, the amount of intravenous fluids administered, the length of time the intravenous and urinary catheters have been in place, and the patient's immediate needs and complaints during surgery, such as fasting due to upcoming surgery or diagnostic procedures. This impacts continuity of care, nurse job satisfaction, and, of course, patient safety. Methods to improve communication are crucial to ensure continuous improvement in continuity of care, patient satisfaction, and safety (Chen et al., 2022; Ghosh et al., 2021). Research by Senek et al. (2020) states that essential information about interventions and the implementation of patient care is often lost during shift exchanges.

The above phenomenon indicates that nurses have not implemented bedside handovers optimally and ideally. This, of course, has the potential to negatively impact the quality of nursing care. Nurses, as healthcare providers, must continuously strive to optimize services in accordance with standards to achieve efficient, effective, and high-quality nursing care that prioritizes patient satisfaction and expectations. Based on the background described above, field-based research is necessary to evaluate the effectiveness of bedside handovers in enhancing nurse communication in the delivery of nursing care to patients in private hospitals.

## METHODS

This study was a quasi-experimental study with a nonequivalent control group pretest-posttest design involving a comparison between two groups based on a specific intervention or treatment, in this case the handover method. The study population was 135 nurses. The calculation of sample size uses the Lemeshow formula with a population size adjusted to the inclusion criteria of 64 people, so the calculation of sample size for each group in this study which is considered representative is 32. Participants were selected using a purposive sampling technique based on the following inclusion criteria: (1) having at least one year of work experience; (2) working in an inpatient unit; (3) not being on study leave or other forms of leave; and (4) not holding positions as unit heads or ward heads. The sample was divided into

an intervention group and a control group, each comprising 32 nurses. The intervention group conducted bedside handovers, whereas the control group carried out handovers at the nurse station. Before and after the handover, the nurses' communication level was measured by completing a questionnaire that had undergone a reliability test with a Cronbach Alpha coefficient of 0.767. Changes in nurse communication levels before and after the handover within each group were analyzed using the Wilcoxon Signed-Rank Test, whereas differences in communication levels between the intervention and control groups were examined using the Mann-Whitney U test.

## RESULTS

**Table 1. Differences in the level of nurse communication between before and after the handover in the treatment group and the control group.**

Fase	Treatment Group		Control Group		p-value (Mann- Whitney)
	Mean	Standard deviation	Mean	Standard deviation	
Pre-handover	98,22	15,05	97,97	14,24	
Post-handover	164,69	32,87	98,72	15,07	0,000
p-value (Wilcoxon)	0,000		0,082		

The Wilcoxon test results for the treatment group showed a p-value of 0.000, so it can be interpreted that there is a difference in the level of nurse communication between before and after the bedside handover, which in this case the level of communication increased. The control group showed no significant change in nurse communication levels before and after nurse station handovers ( $p = 0.082$ ). Overall, the results demonstrate that bedside handovers are effective in improving nurse communication in nursing care delivery. Meanwhile, the results of the Mann-Whitney test after the handover showed a  $p$ -value = 0.000, so it can be interpreted that there is a significant difference in the level of nurse communication between nurses who carry out bedside handover and handover at the nurse station. This shows that bedside handover is effective in improving nurse communication in providing nursing care.

## DISCUSSION

The results of this study indicate that there was no improvement in communication between nurses performing handovers at the nurse station, while nurses performing bedside handovers experienced significant improvement in their communication in providing nursing care. Descriptively, this finding is consistent with the statistical analysis Monti et al., (2022), which found no significant difference in nurse communication between before and after the standard hospital procedure intervention without bedside handover intervention. This finding aligns with

findings Jaber et al. (2022) showing no differences in continuity of care, patient satisfaction, and improved nurse communication in the control group. However, contrasting results were found in the treatment group, with improvements in continuity of care, patient satisfaction, and nurse communication after bedside handover with the SBAR method.

The study Oxelmark et al. (2020), concluded that bedside handovers employing the SBAR approach had a positive effect on enhancing inter-nurse communication and increasing nurse satisfaction. In addition, the study identified a comprehensive framework consisting of five domains: time, place, process, interaction, and patient communication. These five domains are important items in assessing nursing handover practices. The categories in this domain are similar to those in the researcher's questionnaire. Similar findings also demonstrated that implementing bedside handovers improved nurse communication. Furthermore, the findings revealed other benefits, including increased positive teamwork and improved patient safety. Therefore, the implementation of this method should be consistently implemented in hospital care settings (Hashish et al., 2023).

Similarly, a study by Tan et al. (2021) explored nurses' experiences and perceptions of bedside handover communication in relation to the improvement of patient care. The findings, supported by Tataei et al. (2023), indicated that nurses reported high levels of performance and satisfaction in delivering patient care as a result of clear and well-defined communication of tasks. Furthermore, this study also reported high levels of communication within the hospital's patient safety culture.

The analysis of this study showed a difference in nurse communication between the treatment and control groups, indicating that bedside handovers influenced nurse communication in providing nursing care in the hospital. Other findings Wang et al. (2022) indicate that bedside handovers had a positive impact on improving nurse communication. Overall nursing handover scores after implementing bedside handovers with the SBAR protocol were higher in the post-intervention group compared to the pre-intervention group. The overall nursing handover score encompassed five categories: time, place, process, interaction, and patient communication.

Research conducted by Ariga et al. (2020), found that bedside handovers facilitated well-communicated and understandable information exchange, fostering open communication and facilitating communication between healthcare providers. A high-quality nurse handover is a crucial component of patient safety, nurse performance, and satisfaction. Nursing managers should take steps to strengthen nurse engagement and cohesion within the service to ensure

efficient and effective bedside handover implementation.

The improvements in nurse communication achieved in this study certainly meet various supporting aspects, including information quality, interaction and support, efficiency, and patient engagement. This is relevant to studies that include the domains of information accuracy, clinical information quality, continuity of care, improved communication between service teams, and patient engagement. The study conducted by the researchers is a crucial aspect of patient care. In addition to improving nurse communication, bedside handover has the potential to improve the quality of care. Implementing bedside handovers makes it easier for nurses to communicate patient conditions with all parties, including patients, families, and fellow nurses. Monti et al. (2022) stated that several benefits of implementing bedside handovers include improving patient care and communication with nurses and avoiding missing information regarding patients during the handover.

The achievement of bedside handovers, based on the researchers' experiment in a private hospital, is certainly inseparable from the role of nursing managers and hospital authorities. Nursing handovers are a multidimensional phenomenon. The study highlighted the need for a supportive environment, better training, adherence to standard handover protocols, and the involvement of nursing managers for effective and efficient handovers. Continuity and continuity of bedside handovers according to standards are also essential. Nursing handovers exemplify nursing professional ethics and integrity. Effective handover practices don't just happen; nurses require relevant support, training, assessment, and feedback. Responsibility for ensuring consistent handover quality must be shared between nurse managers and those who actually perform the handover, requiring the participation and synergy of hospital management.

## **CONCLUSION**

The implication of this research is that there is a change in the level of communication after nurses received an intervention in the form of socialization, while nurses who were not given socialization showed no change in communication during handover. Currently, nurses are conducting bedside handovers to improve communication during patient handover.

## **LIMITATION**

This study has limitations, namely, it involved a limited number of subjects and focused only on inpatient nurses. Therefore, the results are not representative of the general hospital nursing workforce.

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