

**Patient Handoff Practices Among Nurses and Their Impact on Patient Safety and Organizational Outcomes: A Systematic Review**

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**Abstract**

**Background:** Patient handoff (clinical handover) is a vital communication process during transitions of care. Ineffective handoffs are a major cause of medical errors and adverse events globally. International organizations such as the World Health Organization and The Joint Commission emphasize standardized handoff communication to improve patient safety.

**Methods & Materials:** systematic review of literature published between 2004 and 2025 was conducted using databases including PubMed, Scopus, CINAHL, and Web of Science. Studies examining structured handoff practices, bedside reporting, communication frameworks (e.g., SBAR), and electronic handover systems were included. Various study designs such as systematic reviews, qualitative studies, and empirical research were analysed.

**Results:** Structured handoff approaches, including SBAR, bedside handover, and electronic documentation, improved communication accuracy, reduced information loss, and enhanced patient involvement. These interventions were also associated with decreased medication errors, patient falls, and pressure injuries. However, barriers such as time constraints, interruptions, lack of training, and resistance to change limited effective implementation.

**Conclusion:** Structured nursing handoff strategies significantly enhance patient safety and healthcare outcomes. Successful implementation requires organizational support, staff training, and technological integration to overcome existing barriers and strengthen patient safety culture.

**Key Words:** Patient Handoff Practices, Nurses, Patient Safety and Organizational Outcomes

**Introduction**

Patient handoff, also known as clinical handover, is a crucial process in healthcare that involves transferring patient information, responsibility, and accountability between healthcare providers during transitions of care. These transitions commonly occur during shift changes, interdepartmental transfers, and movement between clinical teams. Effective communication during handoffs is essential to ensure continuity of care and maintain patient safety.

However, communication failures during handoffs are widely recognized as a leading cause of preventable medical errors and adverse events. Global patient safety initiatives led by organizations such as the World Health Organization and The Joint Commission highlight that breakdowns in communication during care transitions significantly contribute to poor patient outcomes and sentinel events.

In nursing practice, handovers are particularly important as nurses provide continuous bedside care and act as key coordinators within multidisciplinary teams. Ineffective or incomplete information transfer during handoffs can result in treatment delays, medication errors, and duplication of tasks. To address these issues, structured communication tools such as SBAR (Situation–Background–Assessment–Recommendation) and bedside handover models have been introduced to improve clarity, accuracy, and efficiency of information exchange.

**Need for the Study**

Despite the implementation of structured handoff strategies, challenges such as inconsistent communication practices, time constraints, interruptions, and resistance to change continue to affect the quality of handovers. These barriers can compromise patient safety and reduce the effectiveness of care delivery.

Moreover, while several studies have explored individual aspects of nursing handoff practices, there is a need for a comprehensive synthesis of evidence to better understand their overall impact on patient safety and organizational outcomes. Effective handoff practices not only enhance patient safety but also influence staff satisfaction, teamwork, workflow efficiency, and patient experience.

Therefore, this study is needed to evaluate existing nursing handoff strategies and determine their effectiveness in improving patient safety and healthcare outcomes. A systematic review of current evidence can help identify best practices and support the development of standardized, reliable handoff processes in healthcare settings.

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**2. Aim and Objectives**

The primary aim of this systematic review is to evaluate patient handoff practices among nurses and their impact on patient safety and organizational outcomes in healthcare settings

The objectives of this systematic review are:

- a- To identify common patient handoff practices used by nurses in hospital settings
- b- To evaluate the effectiveness of structured communication tools used during nursing handovers
- c- To examine the impact of nursing handoff practices on patient safety outcomes such as medication errors, falls, and adverse events
- d- To identify barriers and facilitators influencing the implementation of standardized handoff protocols in healthcare environments

**3. Methodology**

This systematic review was conducted using the methodological framework outlined in the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analyses) guidelines to ensure transparency and methodological rigor.

**Search Strategy**

A comprehensive literature search was conducted across major electronic databases including PubMed, Scopus, Web of Science, CINAHL, and Google Scholar [2,36]. The search included articles published between 2004 and 2025 [3,40]. Keywords and Medical Subject Headings (MeSH) were combined using Boolean operators [33].

Key search terms included:

Patient handoff, Nursing handover, Clinical handover, SBAR communication, Bedside handover, Structured handoff protocols, Patient safety, Communication errors

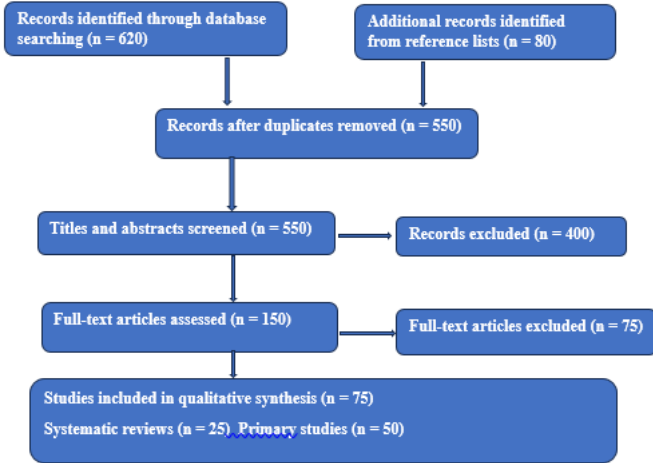
Reference lists of included articles were also manually screened to identify additional relevant studies [32,82].

- **Inclusion Criteria** -Studies were included if they:
  1. Examined patient handoff practices in nursing or multidisciplinary healthcare settings
  2. Evaluated structured handover tools or communication protocols
  3. Reported outcomes related to patient safety or organizational performance
  4. Were systematic reviews, integrative reviews, qualitative syntheses, or primary research studies
  5. Were published in English
- **Exclusion Criteria** -Studies were excluded if they:
  1. Focused exclusively on student training simulations
  2. Lacked measurable outcomes related to handover effectiveness
  3. Were opinion papers without empirical or review methodology

**4. Data Extraction and Synthesis**

Relevant data including study design, healthcare setting, handover intervention, and reported outcomes were extracted. Due to methodological diversity across studies, a narrative synthesis approach was used to analyze the evidence. Study quality was evaluated using standardized appraisal frameworks commonly applied in healthcare systematic reviews.

**5. Systematic Review of Patient Handoff Practices**



**Figure 1- Systematic Review Flow Diagram**

**Results**

**Table 1: Characteristics of Included Studies on Nursing Patient Handoff Practices**

Author(s)	Year	Study Design	Setting	Intervention / Handoff Model	Sample / Scope	Key Outcomes	Main Findings
Melissa Desmedt et al.	2021	Systematic Review of Systematic Reviews	Multiple healthcare settings	Clinical practices handover	29 systematic reviews	Communication quality, patient safety	Standardized handover improves information transfer and reduces adverse events.
Chiara Daicampi et al.	2025	Systematic Review	Hospital wards	Bedside handover nursing	22 studies	Patient satisfaction, organizational outcomes	Bedside handover improves patient engagement and transparency in care.
Martin Müller et al.	2018	Systematic Review	Hospitals	SBAR communication tool	28 studies	Patient safety indicators	SBAR improves clarity of communication and reduces clinical errors.
Sean McCarthy et al.	2024	Systematic Review	Hospital unit transitions	Structured handoff protocols	Multiple healthcare organizations	Safety and communication outcomes	Structured protocols reduce communication breakdown during transfers.
Ahmadreza Raesi et al.	2019	Systematic Review	Healthcare services	Patient handover processes	37 studies	Barriers to handover	Identified barriers including time pressure, interruptions, and lack of training.
Adriana Hada & Fiona Coyer	2021	Integrative Review	Inpatient hospital units	Shift-to-shift nursing handover interventions	19 studies	Falls, pressure injuries, medication errors	Structured handover linked with reduction in nursing-sensitive adverse outcomes.
Ming Xuan Bukoh & Chiew-Jiat Rosalind Siah	2020	Systematic Review	Hospital nursing units	Structured nursing handover interventions	21 studies	Patient safety outcomes	Standardized handover improved communication accuracy and reduced clinical risks.
Amy Maher et al.	2024	Systematic Review	Hospital settings	Bedside handover with patient participation	17 studies	Patient involvement	Patient-inclusive handover enhances engagement and care understanding.
JW Ahn et al.	2021	Systematic Review & Meta-synthesis	Critical care units	Nurse communication during handovers	12 qualitative studies	Communication barriers	Highlighted communication complexity and need for structured protocols.
H Anshasi & ZA Almayasi	2024	Qualitative Systematic Review	Hospital wards	Bedside nursing handover	14 studies	Perceptions of nurses and patients	Positive perception toward bedside reporting for transparency and safety.
Pun J et al.	2019	Case Study	Hong Kong hospital	CARE protocol for handover	Nursing staff	Communication quality	CARE protocol improved communication clarity and teamwork.
Pun J	2023	Case Study	Bilingual hospital setting	ISBAR protocol	Nursing staff	Handover quality	ISBAR improved standardized communication among nurses.
Delardes B et al.	2020	Systematic Review	Healthcare organizations	Electronic handover systems	Multiple hospital studies	Patient outcomes	Electronic handover systems improved information accessibility.
Møller TP et al.	2013	Systematic Review	Surgical units	Postoperative handover practices	Surgical staff	Safety outcomes	Structured postoperative handover reduced information loss.
Tobiano G et al.	2018	Mixed-methods systematic review	Acute care hospitals	Bedside handover with patient participation	20 studies	Patient participation	Patient participation increased safety awareness and satisfaction.
Sharp L et al.	2019	Quality Improvement Study	Oncology inpatient care	Person-centred handover checklist	Nursing staff	Compliance and communication	Checklist improved handover accuracy and staff compliance.
Kullberg A et al.	2019	Longitudinal Study	Oncology inpatient care	Person-centred bedside handover	Patients and nurses	Patient satisfaction	Significant improvement in patient satisfaction after intervention.
Sayani Ghosh et al.	2021	Observational Study	Hospital units	Structured clinical handover protocol	Clinical staff	Communication effectiveness	Structured handover improved patient satisfaction and communication.
Liu Y et al.	2022	Cross-sectional Study	Psychiatric nursing	Handover assessment quality	Nurses	Safety behavior	High-quality handover associated with improved safety behavior.
Veronese M et al.	2025	Instrument Development Study	Hospital settings	Handover Quality Questionnaire	Nursing staff	Handover satisfaction	Validated tool to measure nursing handover quality.

**Table 2. SBAR Impact on Outcomes**

Areas	Evidence Strength	Findings
Communication clarity	Strong	Consistent improvement
Medication errors	Moderate	Reduction reported
Safety attitudes	Moderate	Improved safety climate
Mortality	Limited	Insufficient direct evidence

**Bedside Handover**

Bedside handover involves transferring information in the patient’s presence. Key Reviews are Daicampi et al. (2025), Tobiano et al. (2018), McCloskey et al. (2019) and Anshasi & Almayasi (2024)

Findings are Increased patient satisfaction, Improved patient engagement, Enhanced transparency and Some concerns: confidentiality, time burden

**Table 3. Organizational Outcomes of Bedside Handover**

Outcome	Effect
Patient satisfaction	↑ Significant improvement
Nurse satisfaction	Mixed
Falls	↓ Reduction reported
Length of stay	No consistent effect

**3.4 Shift-to-Shift Nursing Handover and Clinical Outcomes**

Hada & Coyer (2021) demonstrated association with Reduced falls, Reduced pressure injuries, and Reduced medication errors Chaboyer et al. (2010) and Burston et al. (2015) showed improved nursing-sensitive outcomes after structured shift reforms.

**3.5 Electronic Handover Systems**

Delardes et al. (2020) systematic review showed Improved documentation completeness, Reduced omissions and Potential reduction in clinical management errors (Johnson et al., 2016)

**Table 4. Electronic vs Verbal Handover**

Feature	Verbal	Electronic
Completeness	Variable	Higher
Accessibility	Limited	Improved
Standardization	Low	High
Implementation cost	Low	Higher

**6. Conceptual Framework Nursing Patient Handoff and Outcomes**

The conceptual framework illustrates the relationship between nursing handoff practices and patient safety and organizational outcomes. Nursing handoffs, including shift reports, bedside handovers, and structured communication protocols, serve as key methods for transferring patient information during care transitions.

Structured tools such as SBAR (Situation–Background–Assessment–Recommendation) and electronic handover systems improve communication by standardizing and clarifying information exchange, reducing the risk of errors. Improved communication quality enhances situational awareness, supporting better clinical decision-making and care coordination.

This leads to improved patient safety outcomes, such as reduced medication errors, patient falls, and adverse events. Additionally, effective handoff practices contribute to better organizational outcomes, including improved teamwork, patient satisfaction, and workflow efficiency.

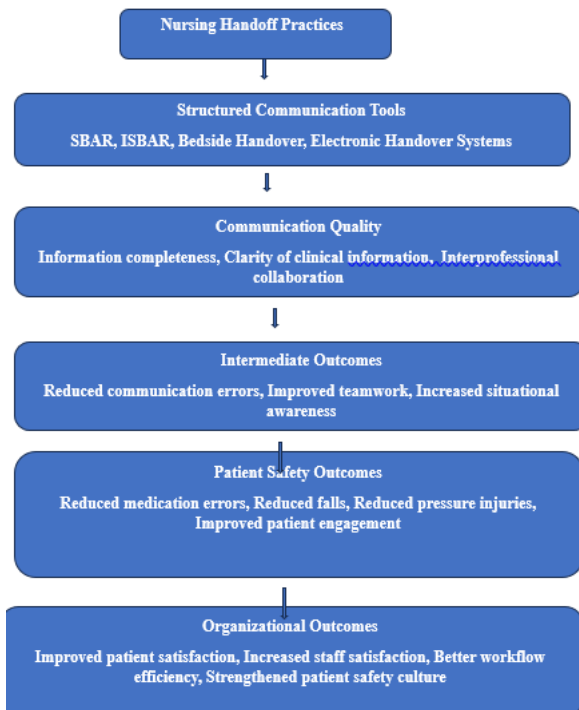
Overall, the framework highlights that structured nursing handoff practices play a vital role in linking effective communication with improved patient safety and healthcare performance.

**6. Patient Handoff Practices in Nursing**

Nursing handoff practices are essential for maintaining continuity of patient care, involving the transfer of responsibility and clinical information between nurses during shift changes or patient transfers. Effective handovers ensure accurate communication and reduce the risk of clinical errors.

Traditional handovers, often conducted verbally in staff rooms, may lead to incomplete or inconsistent information due to a lack of structure. To overcome this, healthcare institutions have introduced structured handover protocols, including standardized formats, bedside handovers, and electronic documentation systems.

Bedside handover, a patient-centered approach, allows patients to participate in their care, improving transparency and communication. Overall, structured handoff practices enhance information accuracy, teamwork, and patient safety, supporting safer care



transitions.

**7. Impact on Patient Safety Outcomes**

Effective patient handoff communication is vital for improving patient safety, as communication failures during handovers are a major cause of preventable errors and adverse events. Improving the quality of nursing handoffs has therefore become a key focus in healthcare.

Structured handoff protocols, such as SBAR, enhance the clarity and completeness of information exchange, reducing omissions and miscommunication. These approaches ensure consistent communication of critical patient details.

Research shows that structured handovers are associated with improved patient safety outcomes, including reductions in falls, pressure injuries, and medication errors, by enhancing situational awareness and patient monitoring.

Bedside handovers further improve safety by involving patients in the communication process, allowing verification and clarification of information. Overall, effective nursing handoff communication is essential for reducing errors and promoting safe patient care.

**8. Organizational Outcomes**

Effective nursing handoff practices not only improve patient safety but also enhance healthcare organizational outcomes. Clear communication during handovers supports better clinical decision-making, workflow efficiency, and overall quality of care.

Structured handover protocols promote teamwork by standardizing communication, reducing misunderstandings, and improving coordination among healthcare professionals. They also increase nurse satisfaction by providing clarity about patient conditions and responsibilities during shift transitions.

Bedside handovers improve patient engagement and satisfaction by involving patients in their care, fostering transparency and trust. Additionally, effective handoff communication reduces duplication of tasks and delays, improving operational efficiency and minimizing errors.

**9. Barriers to Effective Nursing Handoff**

Despite its importance, effective nursing handoff communication faces several barriers within healthcare settings. A major challenge is the lack of standardized procedures, leading to inconsistent communication and potential loss of critical patient information.

Time constraints and heavy workloads often result in rushed or incomplete handovers. Environmental factors such as noise and interruptions further disrupt communication and increase the risk of errors.

Resistance to adopting new handover protocols also limits effective implementation. Overcoming these challenges requires proper training, leadership support, and organizational policies that prioritize clear and structured communication during patient handovers.

## 10. Discussion

The findings of this systematic review emphasize the importance of structured nursing handoff practices in improving patient safety and organizational outcomes. Communication failures during clinical transitions remain a major cause of preventable adverse events.

Structured tools such as SBAR and bedside handovers enhance the accuracy and consistency of information exchange, reducing errors. These practices are associated with improved patient safety indicators, including fewer medication errors, falls, and pressure injuries.

Effective handovers also improve teamwork, workflow efficiency, and staff satisfaction by supporting better clinical decision-making and care coordination. However, successful implementation requires strong organizational support, staff training, and leadership commitment.

## 11. Conclusion

Patient handoff practices are essential for safe healthcare delivery, and structured communication methods such as SBAR, bedside handovers, and electronic systems significantly improve patient safety and organizational outcomes. These approaches reduce errors and enhance teamwork, efficiency, and patient satisfaction. However, barriers like time constraints and resistance to change remain, highlighting the need for continued training, leadership support, and further research to improve handoff practices.

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