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Impact of the I-PASS Communication Method on Nurse Handover Quality in Hospital Settings: A Scoping Review

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ABSTRACT

Effective handover communication is a crucial element in ensuring patient safety and continuity of care in clinical settings. Communication errors during handovers frequently lead to medical errors and adverse events. The I-PASS method was developed as a structured solution to address these challenges. This study aims to identify and synthesize evidence regarding the impact of implementing the I-PASS communication method on the quality of nurse handovers and its contribution to improving patient safety. A comprehensive literature search was conducted across four major databases (Science Direct, EBSCO, PubMed, and Scopus) from December 2024 to September 2025, using keywords such as "Nurse", "I-PASS Method," "Communication", "Quality Handover" and "Patient Safety". Nine articles met the inclusion criteria, comprising quantitative, prospective, observational, and quasi-experimental studies published in English between 2015-2025. A total of 9 studies were included in this review. This study found five themes of impact I-PASS communication methods on the quality of nurse handovers. The implementation of I-PASS was associated with reduction in communication errors, improvement information quality, medical staff satisfaction, time efficiency, as well as patient and family engagement. While the effectiveness of I-PASS has been demonstrated across various contexts, implementation challenges such as environmental interruptions and the need for managerial support remain.

Key Messages:

- The implementation of the I-PASS method represents a fundamental clinical practice implication for achieving structured and comprehensive handovers, thereby reducing the risk of medical errors and adverse events.

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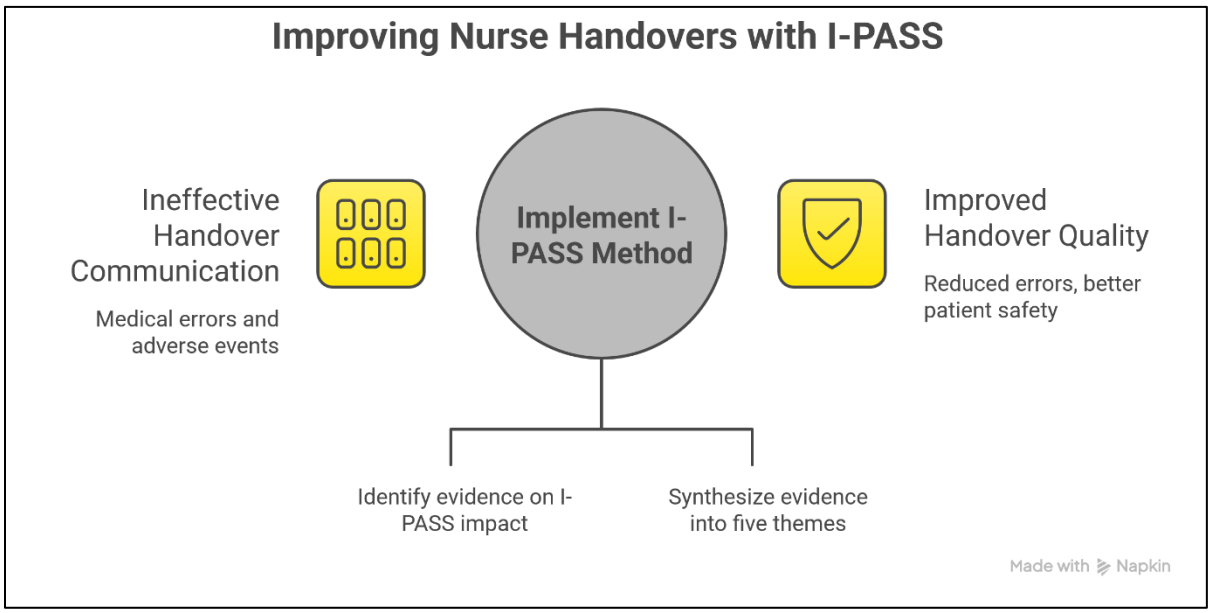
GRAPHICAL ABSTRACT



INTRODUCTION

The quality of healthcare services in hospitals is significantly reflected in the effectiveness of nursing handovers. Handover is a medium for the exchange of information and transfer of nurses' responsibilities regarding health status, actions that have been performed, and actions that will be carried out next, so that services continue to be provided safely within 24 hours (1), therefore the information conveyed must be clear and complete. It represents a critical communication process during shift changes that maintains the continuity of nursing care (2). Ineffective information exchange between healthcare providers can lead to adverse outcomes and consequences related to patient safety and survival (3)including medical errors and mortality (4)

The information transferred relates to the patient's clinical condition, personal need and social circumstances, aiming to ensure effectiveness and safety in patient care, thereby minimizing incidents that could harm patients. Consequently, improving the quality of handover implementation is essential(5). Communication plays a vital role in providing patient care during handovers. The National Hospital Accreditation Standards (SNARS 2018) state that communication in hospitals will be effective if its implementation considers timeliness, accuracy, completeness of information, and acceptability by the information recipient, thereby reducing intervention errors.

Various studies indicate that most patient safety incidents in hospitals including medication errors, delayed interventions, and serious complications, stem from ineffective communication during handover processes(6). According to The Joint Commission's evaluation data, more than 3,800 patients have been harmed, with 65% of these incidents attributed to communication errors, half of which occurred during handover processes (7). Recent evidence suggests that 80% of adverse events result from failed nursing communication during handovers, leading to medication delays, medication errors, and patient falls (8). This problem is exacerbated by the high frequency of handovers in healthcare settings, estimated at more than 4,000 handovers daily. Unfortunately, handovers that should be structured and focused to ensure continuity of care are often conducted casually, increasing patient safety risks(9). This can lead to fragmented care, decreased service quality, and increased adverse events in hospitals (10)with more recent evidence also showing that better health information quality is strongly associated with improved patient safety performance in hospital settings (11).

Although various communication methods such as SBAR have been used to improve handover quality, their implementation still shows various limitations. In the SBAR technique (situation-background-assessment-recommendation), critical items such as resuscitation status or pending

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examination results are often not communicated completely, thereby reducing the effectiveness of the communication process(12). More recent work also shows that SBAR-based handovers remain vulnerable to interruptions and incomplete transfer of key clinical information(13). The other impact of unstructured handover processes is on the psychological aspects and workload of nurses (14,15). This often makes nurses feel anxious, rushed, or even worried about the occurrence of errors in daily practice(16). Therefore, improving handover quality is urgently needed as part of a strategy to enhance safety and quality in nursing services. This urgency becomes increasingly apparent with the growing complexity of patient cases in hospitals and the demand for healthcare services that are safer, more effective, and patient-oriented (9).

I-PASS is a handover communication method used to reduce medical errors and preventable patient incidents. I-PASS offers a comprehensive view of the patient while highlighting areas that need to be consistently communicated across all levels of care(17). The structured I-PASS handover tool aims to improve communication during patient transfers and reduce errors and preventable adverse events(18). The I-PASS study was first launched in nine children's hospitals in 2010 with a mnemonic for the core elements of the handover process: I: Illness severity; P: Patient Summary A: Action Items; S: Situation awareness and contingency planning; S: Synthesis by receiver. The expected outcomes from the I-PASS method include improved healthcare provider workflow, increased provider satisfaction, enhanced verbal and written communication, and a reduction in medical errors(19).

Although many studies have demonstrated the effectiveness of I-PASS in reducing medical errors and improving information quality, most of the literature on I-PASS focuses on the implementation of this (1)method among physicians or residents, while research specifically evaluating its application to nurses remains very limited(19,20). In fact, nursing workflow has fundamentally different characteristics from physician workflow, including higher handover frequency, ongoing patient monitoring responsibilities, and the need for more detailed and operationally oriented communication. These differences require more specific evaluation of I-PASS effectiveness in the nursing context. Therefore, a review is needed that specifically maps the scientific evidence regarding the impact of I-PASS on nursing handover quality. This review aims to fill this gap by providing a comprehensive understanding of how I-PASS is implemented in nursing practice, the challenges encountered, and aspects of this method that still require further research.

METHODS

Study design

This study follows the five-stage framework developed by Arksey & O'Malley (2005) (21). The stages include formulating the research question, identifying relevant evidence sources, selecting studies, extracting data, and synthesizing findings through narrative reporting. To ensure transparent and high-quality reporting, the review adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR)(22). The study selection process is illustrated in the PRISMA-ScR flow diagram presented in Figure 1. The research questions guiding this review were: a) What are the impacts of the I-PASS communication method on the quality of nurse handovers? and b) How do the components of the I-PASS method effectively contribute to improving patient safety during the handover process?

Search strategy

The literature search was conducted from December 2024 to September 2025. The search strategy encompassed four major electronic databases: Science Direct, EBSCO, PubMed, and Scopus. The primary keywords used were: "Nurse" AND "I-PASS Handover" AND "Communication" OR "effective communication" OR "patient safety"). These keywords were aligned with Medical Subject Headings (MeSH) to identify alternative terms and ensure comprehensive coverage of relevant literature. The detailed search strategy is presented in Table 1.

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Table 1. Search strategy Across Four Databases

Database		Keyword	Retrieved
Science direct	NA	(“Nurse " OR “Nursing” OR “Registered Nurse”)	100
	NA	(“I-PASS "OR Mnemonic I-PASS OR handoff toll)	
	NA	(“handover OR “handoff” OR signout OR signover OR Clinical Handover)	
	NA	(Communication OR effectiveness communication OR effective communication OR increase communication OR Communication Quality OR Improving Communication OR Improving handover	
	Boolean	(“Nurse " OR “Nursing” OR “Registered Nurse”) AND (“I-PASS "OR Mnemonic I-PASS OR handoff toll) AND (“handover OR “handoff” OR signout OR Signover OR Clinical Handover) AND (Communication OR effectiveness communication OR effective communication OR increase communication OR Communication Quality OR Improving Communication OR Improving handover	
EBSCO	S1	(“Nurse " OR “Nursing” OR “Registered Nurse”)	130
	S2	(“I-PASS "OR Mnemonic I-PASS OR handoff toll)	
	S3	(“handover OR “handoff” OR signout OR Signover OR Clinical Handover)	
	S4	(effectiveness communication OR effective communication OR increase communication OR Communication Quality OR Improving Communication OR improving handover)	
	Boolean	S1 AND S2 AND S3 AND S4	
PubMed	#1	(“Nurse "[MeSH Terms] OR “Nursing” OR “Registered Nurse”)	449
	#2	(“I-PASS "[MeSH Terms] OR Mnemonic I-PASS OR handoff toll)	
	#3	(“handover "[MeSH Terms] OR “handoff” OR signout OR Signover OR Clinical Handover) (effectiveness communication OR effective communication OR increase communication OR Communication Quality OR Improving Communication)	
	Boolean	#1 AND #2 AND #3	
Scopus	#1	(“Nurse " OR “Nursing” OR “Registered Nurse”	316
	#2	(“I-PASS "OR Mnemonic I-PASS OR handoff toll)	
	#3	(“handover OR “handoff” OR signout OR Signover OR Clinical Handover)	
	#4	(Communication OR effectiveness communication OR effective communication OR increase communication OR Communication Quality OR Improving Communication OR Improving handover)	
	Boolean	#1 AND #2 AND #3 AND #4	

Inclusion and exclusion criteria

Inclusion criteria were developed using the PCC framework (Population, Concept, Context) to establish the study's focus.

Population: All registered nurses

Concept : The quality of nurse handover as an outcome of implementing the I-PASS communication method. This encompasses multiple dimensions influenced by I-PASS, including the reduction of medical errors and adverse events, enhancement of information completeness and accuracy, improvement of workflow with minimized interruptions during the transfer process, increased nurse satisfaction, and engagement of patients and families in handover procedures

Context : Hospital settings across various care units (e.g., intensive care unit, emergency department, inpatient ward)

Additional inclusion criteria for analyzed articles encompassed PDSA, mixed method studies, quantitative studies including prospective, observational and quasi-experimental designs. These were selected to maintain methodological rigor. The review specifically targeted studies evaluating the impact of the I-PASS communication method on nurse handover quality. The target population consisted of nurses working in hospital environments. Only studies published in English within the last decade (2015-2025) were included to reflect current advances in I-PASS implementation.

Exclusion criteria in this review included non-English language studies, as English serves as the international language of scientific communication, as well as publications with inaccessible full-text content. Only studies published in English between 2015 and 2025 were included to ensure that full-text articles could be accurately assessed and synthesized. Non-English studies were excluded because the

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review team did not have access to adequate professional translation resources, and self-translation was considered likely to introduce misinterpretation of clinical, methodological, and contextual content.

Data Extraction and Analysis

Data were manually extracted using a standardized table containing essential information, including authors, publication year, country, objectives, study design, intervention details, outcomes measured, and research findings. The included studies were extracted by two independent reviewers (ASP and ASM). When disagreements occurred between the two reviewers, resolution was achieved through discussion and deliberation, with a third reviewer (HRA) involved when needed. Data were analyzed using a descriptive thematic analysis. The data analysis commenced with identifying and tabulating information derived from the reviewed articles. Subsequently, all authors examined and interpreted each finding according to the extraction outcomes. Lastly, the authors verified the analyzed articles to ensure accuracy and reduce potential errors during the extraction phase

RESULTS

Study selection

The initial search yielded 995 articles from the databases ScienceDirect (n = 100), EBSCO (n = 130), PubMed (n = 449), and Scopus (n = 316). After removing 27 duplicate records using Mendeley, 968 unique articles remained and were screened based on title and abstract. From this number, 938 articles were excluded because they were not relevant to the PCC criteria, and 30 reports were sought for full-text retrieval. Two of these reports could not be retrieved because the full text was unavailable (paywalled), leaving 28 articles to be assessed for eligibility. At this stage, 19 articles were excluded (editorials = 2, opinion papers = 15, and two articles that did not discuss I-PASS implementation and handover quality), resulting in 9 studies being included finally for this review (Figure 1).

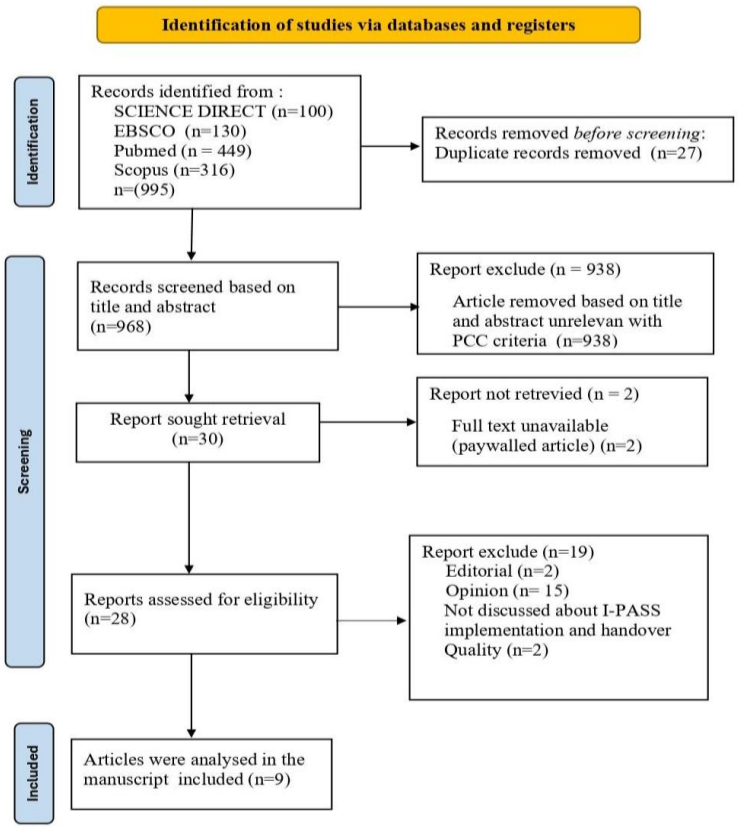

Figure 1. PRISMA flow diagram

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Characteristics of included studies

These studies were conducted in the United States (n=6), Canada (n=1), Iran (n=1), and Switzerland (n=1). Five studies utilized quasi-experimental designs; one used an observational design; two applied the Plan-Do-Study-Act (PDSA) methodology; one used a prospective pre-post intervention design; and one employed a mixed-methods approach. The number of participants varied across studies, ranging from 15 to 3,177 participants (nurses and other healthcare professionals) in various care settings, including inpatient units, emergency departments, psychiatric emergency, Intensive Care Unit (ICU), Critical Care Unit (CCU), Neonatal Intensive Care Unit (NICU), and surgery ward. The characteristics of included studies and their outcomes are displayed in Table 1.

The Impact of I-PASS on Handover Quality

The review highlights that implementing the I-PASS handover system significantly enhances handover quality across five themes. It reduces communication errors, improves the quality of information transfer, and increases medical staff satisfaction. Moreover, I-PASS improves time efficiency during handovers and fosters greater patient and family engagement. Collectively, these improvements indicate that I-PASS strengthens both the safety and effectiveness of clinical communication. The detailed findings are shown in Figure 2.

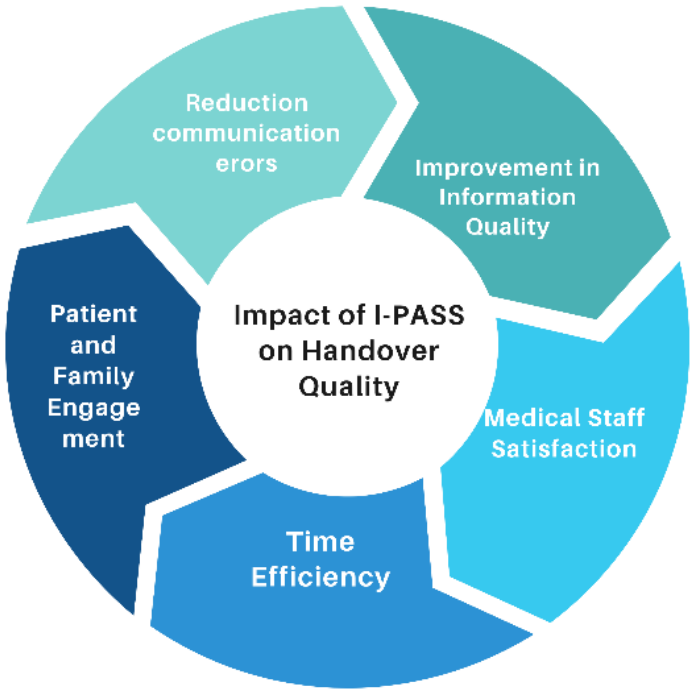

Figure 2. Thematic map of I-PASS impact on handover quality.

Theme 1: Reduction in Communication Errors

The implementation of I-PASS has proven effective in reducing communication errors that frequently occur during patient handoff processes. A multicentre study conducted at nine pediatric hospitals by Starmer, (2017) reported a 23% reduction in medical errors and a 30% reduction in preventable adverse events following I-PASS implementation. Similar outcomes were observed in intensive care units and cardiac care units, where handoff quality scores improved significantly after I-PASS training, indicating reduced risk of miscommunication among nurses(12). Another study demonstrated a 92% reduction in interruptions, which further minimized the potential for information errors(23). Research conducted at an oncology hospital showed that I-PASS implementation helped maintain zero high-harm events throughout the implementation period(24).

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Table 1. Characteristics of Included Studies and Outcomes

Author, Year	Country	Sample	Design	Unit Care Setting	Intervention	Outcomes	Instrument	Results
(Miller, 2021)	USA	98 Nurses	PDSA	Inpatient Paediatric Units	Development of I-PASS/ Bedside Reporting Toolkit, appointment of I-PASS champions and twice weekly huddles	Improvement in Adherence (Specifically targeting the 'Synthesis by Receiver' component)	Audit Electronic Health Record (EHR)	Incomplete handover documentation compliance decreased from nearly 75% to below 25% documentation compliance
(Ais Aiss et al, 2025)	USA	3711 Nurses	PDSA	All nursing areas	Implementation of I-PASS and workflow development	Compliance in documenting I-PASS handover in the HER	Dasbor EHR	Compliance varied between 86% of all documented handovers
						Compliance with I-PASS elements in herbal handover	AMP (Analytics, Management and Performance) Joint Commission	The compliance rate for each observed I-PASS element was above 95%
						Safety outcomes (high risk incidents during transitions	Safety incident reporting system	A zero high harm event rate was maintained
(Chladek et al., 2021)	USA	15 Team Provider	Observational pre-post intervention	Emergency department	I-PASS protocol deployment through education, visual reminders and real time feedback	Provider perceptions (regarding safety and quality)	One-time pre and post intervention survey (Likert Scale)	Providers felt that I-PASS promoted closed-loop communication, enabled appropriate assessment of patient acuity, provided a clear action list for disposition and promoted patient safety
						Time to complete handover (balance measure)	Documented during group sign-out observation	The average handover length was 20 minutes. This time did not differ from pre- intervention time.
						Miscommunications	Observations using Form V2	The average percentage of miscommunications was 3.8%
						Critical information Omissions	Observations using Form V2	The average percentage of important information omissions per handover decreased by 53%, reaching 8.3% in the final month of the study
(Lafontaine et al., 2022)	Canada	31 Participant	Mixed-Method	Psychiatric Emergency	Training and implementation of the I-PASS handover protocol were conducted through structured training sessions and questionnaire administration	Handover quality and efficiency	Interviews using open-ended questions	Participants unanimously handover process, and handoffs were perceived as faster and more direct

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Author, Year	Country	Sample	Design	Unit Care Setting	Intervention	Outcomes	Instrument	Results
(Blazin et al., 2020)	USA	180 nurses	Quasi Experimental	Inpatient units, Diagnostic imaging, Procedural Department	Adaptation of I-PASS across contexts and written tools integrated with EHR	Compliance with the 5 I-PASS components	Direct observation and using SPC (Statistical Process Control) p-charts	13 of 21 (62%) verbal data elements were more likely to be present. Component Illness severity assessment increased from 37% to 67% and To Do List increased from 35% to 100%.
						Reduction in perceived handover related errors	Verbal questionnaire	A Significant reduction in handovers with interruptions (from 67% to 40%). Overall interruptions decreased from 170 to 78 per 100 handovers (p<0.001)
						Improvement in clinicians' perceptions of personal and overall handover performance	Self-reported survey	No significant change in median handover duration (18.8 min vs. 19,9 min)
(Starmer et al., 2017)	USA	90 Nurses	Prospective pre-post intervention	Paediatric ICU	I-PASS bundle (education, verbal mnemonic, visual materials)	Improvement in verbal handover communication quality	Direct Observation Handover Tool (21 element)	13 of 21 (62%) verbal data elements were more likely to be present illness severity assessment increased from 37% to 67%, and to-do list increased from 35% to 100%
						Reduction in the frequency of interruptions during handover	Direct Observation Handover Tool	A significant reduction in handovers with interruptions (from 67% to 40%). Overall interruptions decreased from 170 to 78 per 100% handovers (p<0.001)
						Handover Duration	Time motion workflow assessment tools	No significant change in median handover duration (18.8 min vs. 19.9 min)
(Omidi et al., 2023)	Iran	47 Nurses	Quasi Experimental	ICU and CCU Wards	4 week I-PASS training (45min/week); pre: used SBAR	Improving handover quality score	I-PASS Handover Assessment Tool (20 items)	Mean handover scores increased significantly: CCU from 1.88 to 3.62; ICU from 2.37 to 2.93
Abt et al., 2025)	Switzerland	831 nurse handovers	Quasi Experimental	Surgery and General Medicine Wards	Training and simulation bedside handover in I-PASS	Improvement in global handover quality	Manser Rating Tool for Handover Quality (RTHQ)	Intervention factor was positive and significant for Clinic A (Coefficient 0.97) and Clinic B (Coefficient 0.78)
						Handover duration	Handover time observation	Handover duration increased significantly in Clinic B (approximately 48 second)
						Patient trust in nurses	Trust in Nurses Scale (TNS)	No significant difference in mean TNS scores pre vs post intervention
(Cardona et al., 2021)	USA	Neonatal Nurse Practitioners (NNPs)	Observation time series	NICU	I-PASS method training and simulation	Reduction in avoidable interruptions during handover	Data collection cards and SPC X-bar/ S charts	Average avoidable interruptions per handover decreased from 4 to 0.3 (92% reduction). The rate of handovers with zero interruptions increased from 11% to 80%
						Reduction in handover duration	Data collection cards and SPC X-bar/S charts	Handover duration decreased by an average of 1 minutes per patient (from 2 min 53 sec to 1 min 52 sec), representing a total reduction of 38%
						Improvement in provider satisfaction with handover quality	Satisfaction survey	Providers satisfaction increased from a mean score of 3.36 to 3.75

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Theme 2: Improvement in Information Quality

I-PASS enhanced the completeness and quality of information received during handoffs. Studies demonstrated improvements in the documentation of critical components, including illness severity, action lists, and receiver synthesis, resulting in clearer and more comprehensive reports(6). Research conducted in emergency departments showed that healthcare providers perceived improvements in closed-loop communication, clear action lists, contingency planning, and accurate identification of patient acuity(25). Another study reported enhanced perceived handoff quality, with participants noting that handoffs provided all essential patient information and were more comprehensive(26).

Theme 3: Medical Staff Satisfaction

The implementation of I-PASS also positively influenced healthcare staff satisfaction and confidence. Research conducted in neonatal intensive care units reported significant improvements in provider satisfaction following I-PASS curriculum implementation(23). A bedside handover study found that nurses perceived communication as more complete, patients demonstrated greater trust in nursing staff, and team satisfaction increased(27). Another study emphasized that although interruptions remained a challenge, most nurses felt more confident and demonstrated better adherence to communication standards when using I-PASS(28). Pediatric emergency department staff also reported improvements in communication, patient prioritization, and task management(25). Among surveyed clinical nurses, the percentage reporting favorable handoffs in the institutional safety culture survey increased from 64% to 72%, highlighting enhanced staff satisfaction with the handoff process(24).

Theme 4: Time Efficiency

I-PASS also improved time efficiency and workflow continuity. A study by Cardona et al., (2021) reported a reduction in handover time per patient of nearly one minute, equivalent to a 38% decrease in average duration (from 2 min 53 sec to 1 min 52 sec). However, there was no significant change in median handover time (18.8 min vs. 19.9 min)(9) and the average overall handoff length remained approximately 20 minutes(25). Overall efficiency improved because communication became more effective and the need for information repetition was eliminated. Mixed method research found that handovers in Psychiatry units were perceived as faster, more direct, and more efficient(26), confirming that I-PASS enhances communication quality without disrupting work rhythm.

Theme 5: Patient and Family Engagement

Beyond healthcare provider communication, I-PASS enhances patient and family involvement in care. Bedside handover studies indicated that patients felt more confident, safer and more engaged when reports were conducted at the bedside(27). Similar results were shown in other research that emphasized the importance of involving patients and families in communication to improve transparency and satisfaction(29). Thus, I-PASS not only impacts patient safety but also enriches patients' healthcare service experience.

DISCUSSION

The implementation of the standardized I-PASS patient handover system (Illness severity, Patient summary, Action list, Situation awareness and contingency plans, Synthesis by the receiver) has generated five main benefit themes: reduction of communication errors, improvement in the quality of information received, enhancement of medical staff satisfaction, time efficiency, and involvement of patients and families in care. Research evidence demonstrates that this method reduces information loss and communication errors across various service contexts, including high-risk environments such as intensive care units and orthopedic (12,30). Its five-component structure ensures data continuity and interprofessional documentation consistency, supporting the strengthening of clinical information transfer quality(23)(24). Beyond maintaining communication clarity, I-PASS has also been proven to enhance staff perceptions of information completeness and team collaboration(26), foster confidence in handover execution(31) and reduce psychological burden resulting from information uncertainty(25).

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From the patient perspective, the I-PASS based bedside handover approach provides space for active family participation, strengthens therapeutic relationships, and increases understanding of care plans(27,29).

Overall, these findings confirm that I-PASS is not merely a standardization tool, but rather a systematic communication framework oriented toward patient safety and multidisciplinary collaboration. The results of this review align with previous studies that emphasize the role of I-PASS in improving clinical communication quality. Franco-Vega et al (2023) reported a significant decrease in information loss during handovers in intensive care units, consistent with findings by Khedkar et al (2021)(32) showing a reduction in prescription errors from 80% to 17.5%. Ransom & Winters (2018)(33) and Soares et al (2023) also demonstrated a 23% reduction in medical errors and a 30% decrease in preventable adverse events in pediatric patients, confirming the effectiveness of structured communication in clinical contexts. The improvement in the completeness of Action list and Contingency plan components(34) reinforces(9) findings regarding the importance of format uniformity for enhancing transparency and accuracy of information transfer.

Communication error reduction and improved information quality occur because the synthesis by the receiver mechanism encourages active clarification between information givers and receivers, ensuring two-way communication and reducing misinterpretation risk(35). Enhanced information quality is also achieved through uniform structure that guarantees inclusion of all essential data. Digital integration such as Electronic Physician Handoff (EPH) with auto populating features further improves documentation accuracy and prevents missing data or (36–38). Increased staff satisfaction can be explained through Cognitive Load Theory(39). Unstructured handover systems create high extraneous cognitive load, forcing nurses to process random information and fill missing gaps(40). I-PASS fundamentally reduces this burden by providing consistent and predictable structure, allowing nurses cognitive capacity to be allocated toward quality clinical understanding (germane load)(41). Additionally, role clarity within the I-PASS structure defining who communicates what information reduces role ambiguity, which constitutes a source of clinical stress(42). Empirical evidence shows Franco-Vega et al (2023) documented a 68% increase in handover favorability scores, reflecting more efficient and clear work experiences(26). Time efficiency improves through standardized communication sequences and emphasis on core information focus. Soares and García Roig reported a sharp decline in irrelevant conversation duration from 18% to 2.7%. Patient and family involvement strengthens the humanistic aspect through bedside handover, families can understand conditions and ask questions, positively impacting trust and satisfaction with services(29).

These themes collectively transform the safety culture and collaboration within care units. Communication error reduction and improved information quality are critical because they create foundations for shared mental models and inter-professional trust. When staff are confident that received information is accurate, they can make clinical decisions more rapidly and reduce inefficient defensive medicine practices(41). Increased staff satisfaction contributes to healthcare system stability by reducing burnout and improving healthcare workforce retention(43). When nurses feel supported by clear systems, they become more engaged and less vulnerable to emotional exhaustion(44). Time efficiency becomes vital in the context of modern workload pressures, as time saved can be allocated to direct patient contact or complex clinical decision-making, high-value activities for patient outcomes(16). Finally, patient and family involvement affirms the shift toward patient-centered care, where bedside handover transparency empowers patients to become active partners, enhances adherence to care plans, and contributes to potential error detection(29). Fundamentally, I-PASS successfully transforms unit culture from transactional communication to a systematic, safety-oriented approach. This structure creates shared mental models that reduce miscommunication arising from differing assumptions(6). Furthermore, I-PASS functions as a cultural intervention, creating "moments of mindfulness" where staff comprehensively reflect on patient conditions, a practice essential in high-reliability organizations(45).

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Implications for clinical practice and future research

The implementation of the I-PASS method represents a fundamental clinical practice implication for achieving structured and comprehensive handovers, thereby reducing the risk of medical errors and adverse events. Successful I-PASS implementation requires hospital management support and cultural change at the system level. Policymakers must establish I-PASS as a system priority and integrate it into the safety culture of healthcare delivery by mandating I-PASS as the single standardized tool across all disciplines. This support includes allocating financial resources for comprehensive I-PASS training and integrating I-PASS handover tools into Electronic Health Records (EHR) tailored to specific clinical contexts (24,31). Policy should emphasize the "Synthesis by Receiver" element (the final S), where the receiver is required to summarize or repeat key points (read-back), as this closed-loop communication step is critical for achieving a shared mental model and reducing misunderstanding risks.

For institutions seeking to initiate implementation, they should utilize a Continuous Quality Improvement (QI) framework. Initial steps should focus on forming teams that involve frontline staff to identify primary barriers, such as high interruption rates during handover (for example, phone calls, admissions, or colleagues) and perceptions that the process consumes excessive time. Following customization and mandatory training, monitoring should be conducted continuously to sustain the change(24,31). Key monitoring mechanisms include auditing I-PASS documentation compliance in the EHR and conducting direct observation of verbal handovers by trained observers using structured assessment tools. These observations ensure adherence to the five I-PASS elements and facilitate actionable real-time feedback to staff. Additionally, accountability is enhanced through proactive efforts to reduce interruptions, such as providing protected handover spaces and presenting audit results transparently to staff.

Limitations

Several limitations of this scoping review should be acknowledged. First, only studies published in English were included, potentially excluding relevant literature from non-English speaking countries or regions. Second, the focus on studies published within the last decade (2015-2025) limited findings to recent advancements. Third, most included studies originated in the United States and Europe, indicating a need for further research across more diverse geographical and cultural contexts, particularly in low- and middle-income countries (LMICs). This limitation has implications for generalizing this finding to several settings, including countries with limited sources. Fourth, this review did not specifically analyze gray literature, which may have limited the inclusion of policy reports or institutional evaluations that could provide additional insights into I-PASS implementation in clinical practice. Finally, randomized Controlled Trials (RCTs) are limited in this study. Hence, future research is needed to assess the effectiveness of the I-PASS method across diverse geographical and cultural contexts, particularly in developing countries, as well as in varied clinical units such as surgical and geriatric departments. Additionally, randomized Controlled Trials (RCTs) are needed to provide stronger and unbiased evidence.

CONCLUSION

This study demonstrates the implementation of the I-PASS method has significant impacts on the quality of nursing handovers, patient safety, operational efficiency, and satisfaction among all involved parties. Although, the evidence is limited, I-PASS effectively reduces medical errors and adverse events by improving the consistency, completeness, and accuracy of information transferred between nurses, future studies, especially RCTs, are needed to strengthen the evidence base regarding the impact of I-PASS method to improve quality of nursing handovers and reduce patient safety.

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CONFLICTS OF INTEREST

The author declares no conflict of interest.

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