



Interprofessional Communication and Patient Safety: Strategies for Integrated Healthcare Teams in Hospital Settings

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ABSTRACT:

Interprofessional communication represents a critical pillar in contemporary healthcare systems for enhancing patient safety and reducing adverse events. Healthcare facilities worldwide employ diverse professional teams including nursing technicians, operation room technicians, pharmacy technicians, nursing specialists, health education specialists, and medical registrars, each bringing unique perspectives and expertise to patient care. However, communication failures remain the most frequently cited cause of preventable adverse events in hospital settings. This review synthesizes current evidence on interprofessional communication strategies, barriers to effective collaboration, and implementation frameworks for integrated healthcare teams. A comprehensive literature review was conducted using multiple databases including PubMed, SCOPUS, CINAHL, and ProQuest, examining studies published between 2013 and 2024. The findings demonstrate that standardized communication protocols such as SBAR (Situation-Background-Assessment-Recommendation), clearly defined roles and responsibilities, collaborative training programs, and technology-assisted interventions significantly reduce medication errors and adverse events. Furthermore, organizational support, non-punitive safety cultures, and continuous professional development emerge as essential facilitators. This review emphasizes that effective interprofessional communication is not merely an educational requirement but a fundamental prerequisite for patient safety excellence in multi-disciplinary hospital environments. Implementation of these evidence-based strategies can substantially improve patient outcomes, reduce healthcare costs associated with adverse events, and enhance staff satisfaction and retention in healthcare organizations.



Background

Patient safety has emerged as a global healthcare priority following seminal publications highlighting the prevalence of preventable adverse events in hospital settings. According to recent systematic reviews, communication failures between healthcare professionals represent the most significant contributor to adverse events, accounting for approximately 60-80% of preventable adverse incidents in acute care environments. The complexity of modern healthcare delivery necessitates coordinated efforts among multiple professional cadres, including nursing technicians, pharmacy technicians, operation room technicians, nursing specialists, health education specialists, and medical registrars.

In many healthcare systems, particularly in military and armed forces medical facilities, the integration of diverse healthcare professionals remains suboptimal due to historical hierarchical structures, unclear role definitions, and inadequate communication frameworks. The Saudi Arabian healthcare system, which serves as the context for this review, has increasingly emphasized patient safety initiatives and quality improvement programs across all armed forces medical centers. However, interprofessional collaboration remains inconsistent across different units and departments.

The World Health Organization has emphasized that interprofessional collaboration is essential for achieving sustainable development goals and improving health outcomes globally. Healthcare systems that successfully implement structured communication protocols and collaborative practice models demonstrate measurably better patient safety records, reduced medication error rates, decreased readmission rates, and improved patient satisfaction scores. Furthermore, team-based care models have shown significant improvements in operational efficiency, cost reduction, and staff retention rates.

This review aims to synthesize current evidence on interprofessional communication strategies, examine the barriers that impede effective collaboration, identify implementation frameworks suitable for diverse hospital environments, and provide evidence-based recommendations for healthcare teams comprised of technicians, specialists, and registrars working together toward improved patient safety outcomes.

Literature Review

Communication as a Fundamental Component of Patient Safety

The Joint Commission on Accreditation of Healthcare Organizations has consistently identified communication failures as the leading root cause of sentinel events across diverse healthcare settings. A comprehensive systematic review and logic model protocol examining the relationship between communication and patient safety found that poor communication between patients and practitioners, as well as between healthcare professionals themselves, directly contributes to adverse events, delays in treatment, medication errors, and wrong-site surgical procedures (1). The mechanisms by which communication failures translate into patient safety incidents are multifactorial, involving both direct failures in information transmission and indirect failures related to unclear authority structures, role ambiguity, and inadequate feedback mechanisms.

Further to findings from Sikora and colleagues, research has consistently demonstrated a strong link between psychological factors such as anxiety and depression resulting from lack of understanding of medical devices and protocols, poor quality of life among healthcare workers, and increased likelihood of communication errors and patient safety incidents (2). When healthcare professionals experience occupational stress, fatigue, or insufficient training on communication protocols, their ability to transmit information clearly and comprehensively becomes compromised. This creates a cascading effect where patient safety is directly endangered.

The prevalence of workplace incivility represents another critical factor affecting interprofessional communication and patient safety culture. A meta-analysis examining incivility in hospital settings found that the pooled prevalence of experienced incivility among healthcare workers was 25.0%, with witnessed incivility occurring in 30.1% of cases (3). Critically, this meta-analysis of 41 studies demonstrated that workplace incivility showed significant negative associations with multiple domains of patient safety culture, including teamwork, reporting of patient safety events, organizational learning and improvement, management support for safety, leadership effectiveness, communication openness, and communication about



errors. The composite pooled effect demonstrated that incivility reduced the odds of positive patient safety culture outcomes by approximately 41% (OR = 0.590, 95% CI [0.515, 0.676]).

Interprofessional Collaboration and Team Integration

The contemporary healthcare environment increasingly requires coordination among multiple professional disciplines. A systematic review analyzing 64 studies over a 20-year period examining how healthcare professionals contribute to interprofessional collaboration revealed that professionals make contributions in three distinct manners: by bridging professional, social, physical, and task-related gaps; by negotiating overlaps in roles and tasks; and by creating spaces to facilitate collaboration (4). This framework provides valuable insight into the mechanisms by which diverse healthcare teams establish effective communication and coordination. The review noted that contributions differ between different professional groups, with physicians and nurses demonstrating the most extensively studied collaborative behaviors, yet insufficient evidence exists regarding technicians and specialists' roles in these collaborative processes.

In Saudi Arabian healthcare contexts specifically, research conducted among 1,165 healthcare workers investigated the relationship between interprofessional communication quality and medication error rates. The findings revealed a notable positive correlation ($r = 0.16$) between high-quality interprofessional communication and employment in hospital environments, as well as with professionals possessing 5-20 years of experience (5). Conversely, negative correlations were observed with employment in non-traditional healthcare settings ($r = -0.19$) and professionals with fewer than five years of experience ($r = -0.13$). These findings underscore the importance of experience, structured environments, and sustained exposure to collaborative practice in developing effective communication skills.

Medication Errors and Communication Failures

Medication errors represent one of the most preventable adverse events in healthcare, with communication failures being implicated as a primary etiology in the majority of cases. A systematic review specifically examining strategies for integrating pharmacy and

nursing technicians in medication management to reduce medication errors identified four major categories of effective interventions: (1) clearly defined roles and responsibilities, (2) standardized communication protocols, (3) collaborative training and education, and (4) technology-assisted interventions (6). The review found that clearly defined roles and responsibilities enabled pharmacy technicians to work more effectively with nurses and pharmacists in medication administration, leading to reduced medication errors and improved patient safety outcomes. Notably, studies have shown that pharmacy technicians are often excluded from medication safety education and training initiatives, despite their critical role in medication preparation and dispensing processes.

The SBAR (Situation-Background-Assessment-Recommendation) communication tool has emerged as a standardized framework for enhancing interprofessional communication regarding patient status and clinical concerns. A prospective longitudinal study conducted in a Tunisian university hospital gynecology-obstetrics department evaluated knowledge, attitudes, and practices related to SBAR implementation through a pilot training intervention (7). Among 62 care staff participants, a majority (89%) demonstrated low baseline knowledge regarding the SBAR tool. Following comprehensive 4-hour theoretical and practical training incorporating simulation techniques, the majority of participants (75.8%) expressed satisfaction with the training and indicated intention to implement SBAR in their future practice (80.7%). Two months post-training, validated questionnaires demonstrated sustained improvements in SBAR knowledge and application. The study concluded that simulation-based training in standardized communication protocols represents an effective educational approach for healthcare professionals from diverse disciplines.

Patient Safety Training and Workforce Readiness

Research examining the association between healthcare workforce training and patient safety outcomes identified workforce readiness as a complete mediator between training quality and patient safety enhancements. A study conducted across Pakistani healthcare facilities employing structural equation modeling to analyze complex relationships between variables found that training quality, worker preparedness, and organizational



support measured as strong predictors of improved patient safety outcomes (8). Critically, the research highlighted significant curriculum gaps between patient safety knowledge and training standardization across healthcare systems. These findings suggest that standardized training curricula addressing patient safety principles, communication protocols, and teamwork competencies should be mandatory for all healthcare professionals regardless of professional discipline.

Simulation-based team training has emerged as a particularly promising educational approach for developing interprofessional communication and teamwork skills. A quasi-experimental pilot study investigating interprofessional communication skills training to improve error communication among medical students and nursing trainees found that joint training of different healthcare professions is required to achieve effective teamwork and interprofessional care objectives (9). The study demonstrated that simulation-based training environments provide controlled, safe settings for healthcare professionals to practice communication strategies, receive feedback, and develop confidence in addressing safety concerns across professional boundaries.

Furthermore, a comprehensive review synthesizing diverse patient safety and quality improvement programs in healthcare facilities highlighted multiple effective strategies including specialized training programs for intensive care unit handover communication, leadership practices enhancing safety culture, and enhanced interprofessional communication for medication safety (10). The review noted that these strategies foster a culture of safety among hospital staff and significantly improve healthcare outcomes. Additionally, emerging advancements such as standardized prescription protocols, structured case management approaches, and enhanced incident reporting systems in surgical settings all contribute meaningfully to patient safety enhancement.

Communication Barriers in Interprofessional Healthcare Teams

Hierarchical Structures and Power Dynamics

Traditional healthcare systems have historically been organized around hierarchical structures where physicians hold superior authority and decision-making

power. These hierarchical arrangements, while providing clear command structures, often create barriers to open communication from other professionals who may fear retribution or professional consequences for voicing concerns. Nursing technicians, operation room technicians, pharmacy technicians, and health education specialists frequently possess valuable frontline insights regarding patient safety issues, medication administration processes, and equipment concerns, yet hierarchical structures may inhibit their willingness to communicate these observations upward to more senior staff members.

Research on adverse event reporting in surgical departments emphasized that motives for reporting incidents include recognition of potential harm, professional responsibility, and desire to improve systems, yet consequences of reporting—including blame, disciplinary action, and social isolation—significantly reduce reporting frequency (11). Studies demonstrate that fear of consequences substantially reduces incident reporting and communication about safety concerns, particularly among junior staff members and technicians who perceive themselves as having less professional power and security within healthcare hierarchies.

Inadequate Training and Competency Deficits

Many healthcare professionals, particularly technicians entering healthcare roles, receive insufficient training in interprofessional communication, teamwork, and patient safety principles. Curriculum gaps exist whereby formal education programs inadequately address collaborative practice competencies, standardized communication protocols, and strategies for managing professional disagreements and conflicts. This training deficit translates into healthcare workers who, despite possessing excellent technical skills in their specific domains, lack confidence and competence in interdisciplinary communication scenarios.

The finding that 89% of healthcare staff initially demonstrated low knowledge regarding standardized communication tools such as SBAR underscores the extent of this educational gap globally. Without structured training in communication frameworks, healthcare professionals resort to informal, variable, and often ineffective communication patterns that increase error potential and reduce patient safety.



Role Ambiguity and Unclear Responsibilities

In many hospital settings, particularly those with diverse professional cadres including technicians and specialists, role definitions and responsibilities remain ambiguous. When multiple professionals are involved in patient care processes without clear delineation of who is responsible for specific functions, accountability becomes diffuse, and critical tasks may be inadvertently overlooked. Furthermore, role ambiguity creates confusion regarding authority for certain decisions, when escalation is appropriate, and who should be consulted regarding specific clinical matters.

Clearly defined roles and responsibilities emerged in systematic reviews as the most commonly reported integration strategy for effective interprofessional collaboration. This finding underscores that simply increasing the number of professionals involved in patient care does not automatically improve outcomes; rather, precision in role definition is essential. Each professional—whether nursing technician, operation room technician, pharmacy technician, or nursing specialist—must understand exactly what responsibilities they bear, what authority they possess for specific decisions, and what situations mandate consultation with other professionals.

Inadequate Infrastructure and Environmental Factors

Physical environment and communication infrastructure substantially affect interprofessional communication effectiveness. In busy acute care settings where multiple professionals interact simultaneously under time pressure, inadequate communication channels, insufficient opportunities for team huddles or briefings, and physical separation between professionals impede regular communication. Furthermore, workload and time constraints in operation rooms and intensive care units may create pressure for rapid decision-making that prioritizes task completion over thorough communication and verification.

Research examining workload perceptions among operation room nurses and technicians found that occupational stress and workload concerns were frequent among these professionals, with mean workload scale scores of 32.4 ± 6.2 (on a scale where higher scores indicate greater burden). Excessive workload directly

reduces the cognitive capacity available for high-quality communication, attention to detail, and systematic verification of critical information. Under time pressure and fatigue, professionals are more likely to make assumptions, skip verification steps, and engage in incomplete communication.

Evidence-Based Communication Strategies and Interventions

Standardized Communication Protocols

The SBAR (Situation-Background-Assessment-Recommendation) tool represents one of the most extensively researched standardized communication protocols in healthcare. SBAR provides a structured framework for communicating patient information across professional boundaries by requiring the communicator to present: (1) Situation—the immediate clinical circumstance; (2) Background—relevant historical and contextual information; (3) Assessment—clinical interpretation of the situation; and (4) Recommendation—the specific action or response being requested. This structure ensures comprehensive information transfer, reduces ambiguity, and provides a common language understood across professional disciplines.

Implementation of SBAR in diverse healthcare settings, from gynecology-obstetrics departments to general ward settings, has demonstrated significant improvements in communication quality and patient outcomes. A pilot study in Tunisia demonstrated that while baseline SBAR knowledge was low (89% of staff had minimal knowledge), following simulation-based training with active practice, the majority of staff (80.7%) intended to implement SBAR in their future clinical practice. Sustained application of SBAR post-training was documented through validated questionnaires, suggesting that simulation-based training with practical application results in sustained behavioral change.

Beyond SBAR, other standardized communication protocols have demonstrated effectiveness. Studies of handoff communication, particularly critical in intensive care unit settings and surgical environments, highlight that structured handoff protocols reduce information loss, decrease error rates, and improve patient safety outcomes compared to informal handoff practices. Handoff communication standardization should specify



what information must be communicated, in what format, with what verification mechanisms.

Collaborative Training and Interprofessional Education

Interprofessional education—where students or professionals from different healthcare disciplines learn together about collaboration, team dynamics, and shared patient safety goals—has demonstrated significant effectiveness in improving subsequent clinical collaboration and patient safety outcomes. A quasi-experimental pilot study of interprofessional communication skills training for medical students and nursing trainees found that joint training improves medication error communication competence. The researchers emphasized that "to improve interprofessional communication, joint training of the different healthcare professions is required in order to achieve the goal of effective teamwork and interprofessional care" (9).

Collaborative training programs should ideally include all members of actual clinical teams—nursing technicians, operation room technicians, pharmacy technicians, nursing specialists, and medical registrars—working together to develop shared understanding of roles, mutual respect for each discipline's expertise, and practical experience in managing complex communication scenarios. Simulation-based training environments prove particularly valuable because they allow healthcare professionals to practice communication in realistic clinical scenarios without risk to actual patients, receive immediate feedback, and repeat scenarios until competence is achieved.

Furthermore, collaborative training programs addressing specific content areas such as medication safety, emergency response protocols, and patient handoff communication should be tailored to address the particular communication challenges and error risks most relevant to each clinical environment. Training effectiveness is enhanced when learning occurs in interprofessional teams that reflect actual clinical work groups.

Technology-Assisted Interventions

Technology can substantially support and enhance interprofessional communication. Barcode Medication Administration (BCMA) systems, Automated

Dispensing Cabinets (ADCs), and electronic health records provide mechanisms for reducing medication errors through real-time verification, decision support, and automated safety checks. A systematic review identified that implementation of BCMA in hospital settings led to significant reduction in medication administration errors, with pharmacy technicians playing a key role in medication preparation and dispensing. Electronic systems that require explicit data entry, provide decision support alerts, and create permanent records of clinical decisions and actions can substantially reduce errors compared to purely manual, paper-based systems.

Additionally, computer-based training and virtual learning platforms have proven effective for delivering interprofessional education at scale. A study using computer simulation for teaching communication skills found that virtual human simulation offers "an effective and engaging means of advanced communication training," enabling knowledge transfer into realistic clinical situations and demonstrating improvement in healthcare worker communication competence.

Electronic documentation systems that streamline communication between professionals, provide shared access to patient information, and create audit trails supporting accountability also enhance interprofessional coordination. When all team members can access current patient information, understand each other's assessments and plans, and communicate asynchronously through electronic documentation, communication effectiveness improves substantially.

Creating Supportive Organizational Environments

Patient Safety Culture and Non-Punitive Approaches

The culture within a healthcare organization profoundly influences whether professionals feel empowered to communicate about safety concerns, report errors, and work collaboratively. Organizations with strong patient safety cultures characterized by open communication, blame-free error reporting mechanisms, and transparent discussion of adverse events and near-misses demonstrate higher rates of incident reporting and significantly better patient safety outcomes. Conversely, punitive cultures where errors result in blame, disciplinary action, and professional consequences suppress reporting and prevent organizational learning.



Research on adverse event reporting from nurses' perspectives found that "key facilitators of adverse event reporting were effective communication, knowledge sharing, a non-punitive culture and superior feedback" (11). The study emphasized that nurses and other healthcare professionals must experience psychological safety—the conviction that they can speak up, express concerns, and report errors without fear of negative interpersonal consequences. Without psychological safety, even well-trained professionals will remain silent about safety concerns.

Building non-punitive safety cultures requires explicit organizational leadership commitment, visible modeling by senior clinicians and administrators, policies that distinguish between negligent actions and system failures, and transparent processes for investigating adverse events focused on system improvement rather than individual blame. Moreover, feedback mechanisms must be established where individuals who report safety concerns receive information about what actions were taken in response, demonstrating that reporting leads to meaningful improvement.

Leadership and Governance Structures

Patient safety strategy documents from healthcare systems emphasize that effective patient safety requires "effective Leadership and Governance to Improve Patient Safety." Leadership structures must explicitly prioritize patient safety, allocate resources for safety initiatives, and hold all organizational levels accountable for safety outcomes. Clinical leaders—both physicians and non-physician leaders—must actively model collaborative communication, involve all team members in decision-making regarding patient care, and demonstrate respect for contributions from all professional disciplines.

Furthermore, governance structures must ensure that patient safety oversight occurs at multiple organizational levels, from frontline team huddles to department-level committees to system-wide governance boards. This multi-level approach ensures that safety concerns identified at the frontline reach senior leadership, that policies and procedures are informed by frontline perspectives, and that resources are allocated to address identified safety risks.

Professional Development and Continuing Education

Ongoing professional development in communication competencies, patient safety principles, and teamwork skills must be integrated into continuing education requirements for all healthcare professionals. Rather than viewing communication training as optional or addressing it only during initial orientation, healthcare organizations should establish expectations that all professionals—including technicians, nurses, specialists, and registrars—participate regularly in communication skills development, patient safety education, and team training activities.

Research demonstrating that workforce readiness completely mediates the relationship between training quality and patient safety outcomes emphasizes the importance of maintaining and enhancing professional competencies throughout careers. Communication competencies are not static; they require ongoing development, practice, and refinement throughout professional careers. As clinical environments evolve, new equipment and protocols are introduced, and team compositions change, professionals require updated training to maintain high communication standards.

Integration of Diverse Healthcare Professionals in Hospital Settings

Role-Specific Contributions of Nursing Technicians, Operation Room Technicians, and Pharmacy Technicians

Nursing technicians represent the frontline of patient care in many hospital settings, with direct responsibility for vital signs monitoring, patient assistance with activities of daily living, patient communication, and documentation of patient observations. Nursing technicians often spend more time directly with patients than any other professional, positioning them to identify subtle changes in patient status, detect patient concerns, and serve as crucial links between patients and registered nurses or physicians.

Operation room technicians possess specialized knowledge of surgical instruments, equipment setup, sterile field maintenance, and surgical procedures. During surgical procedures, operation room technicians must communicate effectively with surgeons, anesthesia providers, and nursing staff regarding equipment needs, potential sterile field breaches, and procedure-related



issues. Errors or miscommunication in the operating room can have immediately catastrophic consequences, making clear communication protocols in these environments particularly critical.

Pharmacy technicians play essential roles in medication preparation, drug verification, inventory management, and ensuring that medications are appropriately labeled and stored. Many medication errors occur during the preparation and dispensing phases before medications reach patients. Pharmacy technicians' involvement in medication error prevention is therefore critical, yet they are frequently excluded from medication safety training and interprofessional team communications.

Health education technicians and health informatics technicians bring expertise in patient education delivery and health information systems respectively. Patient education technicians can communicate to patients about medication purposes, side effects, and adherence; health informatics technicians ensure that information systems support rather than impede communication and documentation processes.

Effective integration of these diverse technicians and specialists requires that their expertise is recognized, their observations are solicited and valued, and that communication channels are established ensuring they can provide input on safety concerns and quality improvement opportunities.

Nursing Specialists and Senior Registrars' Leadership Role in Teams

Nursing specialists and senior registrars typically hold leadership positions within clinical teams, responsible for overall clinical decision-making, oversight of patient care processes, and supervision of junior staff members. These professionals are ideally positioned to establish and enforce standards for interprofessional communication, model collaborative practice, and empower all team members to speak up regarding safety concerns.

Senior registrars and nursing specialists can facilitate team huddles, lead multidisciplinary rounds where all team members present perspectives on patients, establish clear communication protocols, and create psychological safety that encourages all team members to voice concerns. Their leadership in modeling respectful communication across professional boundaries

establishes normative expectations for the entire clinical team.

Implementation Frameworks and Practical Recommendations

Implementing Standardized Communication Protocols

Healthcare organizations seeking to implement standardized communication protocols such as SBAR should begin with needs assessment identifying current communication practices, barriers to effective communication, and specific high-risk situations where standardized communication would most benefit patient safety. Once needs are identified, organizations should establish steering committees including representatives from all professional disciplines who will lead implementation efforts, receive training, and serve as champions and educators for their peers.

The evidence supports simulation-based training for learning standardized communication protocols. Rather than relying solely on online modules or classroom lectures, organizations should incorporate simulation activities where multidisciplinary teams practice using new communication tools in realistic clinical scenarios, receive feedback from facilitators, and practice until competence is achieved. Training should occur in interprofessional teams reflecting actual clinical work groups when feasible.

Following initial training, organizations must establish auditing and feedback mechanisms where communication practices are observed or reviewed through other methods, compliance with protocols is assessed, and feedback is provided to individuals and teams regarding adherence. Research shows that initial training effects diminish without sustained reinforcement, feedback, and accountability mechanisms.

Creating Interprofessional Team Structures

Healthcare organizations should intentionally create interprofessional team structures where representatives from nursing, pharmacy, operation room technicians, health informatics, health education, and medical professionals work together on patient care units and in multidisciplinary committees. These team structures should establish clear responsibility and accountability



mechanisms, schedule regular team meetings including huddles focused on patient safety, and create forums where safety concerns can be raised and addressed systematically.

Unit-level huddles conducted at the beginning of shifts where all professionals present—including technicians—to discuss patient census, anticipated high-risk situations, and staffing arrangements can establish shared mental models of the day's activities and facilitate open communication. Research demonstrates that team huddles significantly improve team coordination, increase identification of safety hazards, and enhance team communication.

Establishing Reporting and Feedback Mechanisms

Organizations must establish mechanisms for healthcare professionals at all levels to report safety concerns, near-misses, and adverse events without fear of retribution. These mechanisms should provide feedback to reporting individuals regarding actions taken in response to reports, thereby closing the feedback loop and reinforcing the value of reporting.

Critical incident reporting systems or patient safety learning systems that allow anonymous reporting while preserving sufficient information for investigation and corrective action can encourage reporting from professionals who fear retribution. Importantly, these systems should be analyzed to identify trends and recurring issues, enabling organizational learning and prevention of similar incidents in the future.

Allocating Resources and Infrastructure

Implementing effective interprofessional communication requires investment in physical and communication infrastructure. This may include dedicated spaces where interdisciplinary teams can meet and communicate, electronic health record systems designed to facilitate information sharing across professionals, and staffing levels adequate for professionals to participate in team meetings and training activities without compromising direct patient care.

Research has demonstrated clear relationships between adequate staffing, reduced workload burden, improved communication quality, and better patient safety outcomes. Therefore, resource allocation to support staffing levels that allow professionals to communicate

effectively without excessive time pressure is an important organizational investment.

Organizational and Systemic Challenges in Implementation

Resistance to Change and Professional Identity

Implementation of interprofessional communication initiatives may encounter resistance based on traditional hierarchical medical models, professional identity concerns, and skepticism regarding effectiveness. Senior physicians or nurses may perceive standardized communication protocols as unnecessary constraints on clinical judgment; technicians or junior staff may be uncertain whether their input will truly be valued or will result in negative consequences.

Overcoming resistance requires sustained leadership commitment, engagement of respected opinion leaders from all professional disciplines, education regarding the evidence base for communication improvements, and transparent communication about implementation timelines and expectations. Early successes and visible improvements in patient outcomes following implementation can build momentum and convert skeptics into advocates.

Sustaining Implementation and Preventing Drift

Many improvement initiatives demonstrate initial effectiveness but gradually lose fidelity as staff turnover occurs, new employees receive variable training, and organizational attention shifts to competing priorities. To sustain implementation, organizations must integrate communication competencies into hiring criteria and initial orientation programs, conduct regular competency assessments and refresher training, and maintain visible leadership support for communication standards.

Additionally, feedback mechanisms should be ongoing rather than one-time assessments. Regular auditing of communication practices with feedback to individuals and teams helps maintain fidelity to communication protocols and identifies areas where additional support or training may be needed.

Integration with Other Quality and Safety Initiatives

Healthcare organizations typically pursue multiple quality and safety initiatives simultaneously. Communication and teamwork initiatives should be integrated into broader quality improvement frameworks



rather than standing alone. When communication training supports concurrent medication safety initiatives, infection prevention programs, and falls reduction efforts, the relevance and impact of communication training becomes more apparent to frontline staff.

Conclusion

Interprofessional communication represents a critical determinant of patient safety, quality of care, and healthcare worker satisfaction. In healthcare environments involving diverse professional teams—including nursing technicians, operation room technicians, pharmacy technicians, nursing specialists, health education technicians, and senior medical registrars—effective communication requires intentional organizational structures, evidence-based training interventions, supportive cultures, and sustained commitment.

The evidence overwhelmingly demonstrates that standardized communication protocols such as SBAR, when implemented through simulation-based training in interprofessional teams, significantly improve communication quality and reduce adverse events. Furthermore, clearly defined roles and responsibilities, collaborative team structures, non-punitive safety cultures emphasizing psychological safety, and supportive organizational leadership create environments in which effective communication can flourish.

Communication barriers including hierarchical structures, inadequate training, role ambiguity, and suboptimal infrastructure can be addressed through intentional organizational interventions focused on education, culture change, leadership engagement, and resource allocation. Implementation frameworks outlined in this review provide guidance for healthcare organizations seeking to enhance interprofessional communication within their settings.

For organizations like Armed Forces Medical Centers in Saudi Arabia serving diverse patient populations and employing highly specialized professional teams, the investment in interprofessional communication development represents a critical pathway toward achieving patient safety excellence, improving quality outcomes, reducing preventable adverse events, and

enhancing the professional satisfaction and retention of healthcare workers.

Future research should examine long-term sustainability of communication interventions, identify optimal training frequencies and formats for maintaining competence, investigate communication effectiveness across different healthcare specialties and patient populations, and determine cost-effectiveness of communication improvements relative to adverse event reduction. Moreover, research specifically examining the roles of technicians in interprofessional teams and their contributions to communication effectiveness remains limited and represents an important area for future investigation.

Healthcare leaders, educators, and frontline professionals must recognize that excellent interprofessional communication is not a luxury but a fundamental requirement for safe, high-quality patient care. By implementing evidence-based communication strategies outlined in this review, healthcare organizations can measurably improve patient safety, enhance care quality, reduce healthcare costs associated with adverse events, and create work environments where all healthcare professionals—regardless of professional discipline or organizational position—experience psychological safety, professional respect, and opportunities to contribute to continuous improvement in patient care delivery.

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