



Communication and Teamwork in Healthcare: Key Factors for High-Quality Patient Care

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Abstract

Effective communication and cohesive teamwork are foundational determinants of safe, high-quality patient care, yet communication failures remain among the most frequently cited contributing causes of sentinel events and adverse outcomes worldwide. This paper examines the theoretical and empirical foundations of interprofessional communication and teamwork in healthcare settings, drawing on Donabedian's structure-process-outcome model, Reason's Swiss cheese model of error causation, the Team STEPPS framework, and the Interprofessional Education Collaborative (IPEC) competency domains. The paper situates these concepts within the Kingdom of Saudi Arabia's Vision 2030 healthcare transformation agenda and its regulatory architecture, including the Saudi Commission for Health Specialties (SCFHS), the Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI), the Saudi Food and Drug Authority (SFDA), the Nphies claims and eligibility platform, and the Mumaris+ professional registration system. Building on this foundation, the paper proposes the BRIDGE framework—Briefings, Respect, Information-sharing, Debriefing, Goal-alignment, and Escalation—as an integrative model for strengthening communication and teamwork at the point of care. Barriers to implementation, including hierarchical culture, workforce diversity and language variation, workload pressures, and fragmented documentation systems, are examined alongside evidence-based strategies for improvement. The paper concludes that sustained investment in structured communication tools, psychological safety, and interprofessional training is essential to achieving the quality and safety outcomes envisioned under Saudi Arabia's healthcare transformation program.

Keywords: communication; teamwork; interprofessional collaboration; patient safety; TeamSTEPPS; Vision 2030; healthcare quality

1. Introduction

Communication and teamwork sit at the operational core of every clinical encounter. Whether in an operating theatre, an emergency department, a primary care clinic, or a home health visit, the quality of information exchanged between practitioners—and the degree to which those practitioners function as a coordinated team—directly shapes the safety and effectiveness of the care patients receive. Decades of patient safety research converge on a consistent finding: communication breakdown, rather than a deficit of individual clinical knowledge, is the most commonly identified contributing factor in preventable adverse events (Leonard, Graham, & Bonacum, 2004).

Healthcare has evolved from a model centered on the autonomous, individually accountable clinician toward one that recognizes care as an inherently team-based activity, delivered across professional boundaries and organizational structures. This shift is particularly salient in complex, high-acuity environments where multiple disciplines—medicine, nursing, pharmacy, respiratory therapy, and allied health—must synchronize their actions around a shared patient. The World Health Organization has identified communication and teamwork as core competency domains for patient safety curricula, reflecting a global consensus that these are not soft skills peripheral to clinical practice but rather clinical competencies in their own right (World Health Organization, 2011).

This paper reviews the theoretical foundations of communication and teamwork in healthcare, examines their application within the regulatory and policy context of the Kingdom of Saudi Arabia's Vision 2030 healthcare transformation program, and proposes an integrative framework—BRIDGE—intended to translate established evidence into a practical structure for point-of-care implementation. The paper further considers common barriers to effective communication and teamwork and outlines strategies through which healthcare organizations can strengthen both.

2. Theoretical Background

A coherent understanding of communication and teamwork in healthcare draws on several complementary theoretical traditions, each of which illuminates a different dimension of how care quality is produced and how it fails.

2.1 Donabedian's Structure-Process-Outcome Model

Donabedian's classic framework conceptualizes healthcare quality as a function of structure (the organizational and physical resources available), process (the activities that constitute care delivery, including communication and coordination), and outcome (the resulting effects on patient health) (Donabedian, 1988). Within this model, communication and teamwork are

process-level variables that mediate the relationship between the structural resources an organization possesses and the outcomes it ultimately achieves. Two organizations with identical staffing ratios and equipment can produce markedly different patient outcomes depending on how effectively their staff communicate and coordinate care.

2.2 Reason's Swiss Cheese Model of Error Causation

James Reason's model of organizational accidents conceptualizes error as arising not from a single point failure but from the alignment of latent weaknesses across multiple defensive layers within a system (Reason, 2000). Communication failures function as one of the most consequential of these layers: a missed handoff, an ambiguous verbal order, or an unvoiced concern during a procedure can each constitute a hole in the defensive system that, in combination with other latent conditions, permits an adverse event to reach the patient. This model underscores why structured communication tools are treated as safety interventions rather than administrative conveniences.

2.3 TeamSTEPPS

TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety), developed by the U.S. Agency for Healthcare Research and Quality in partnership with the Department of Defense, organizes teamwork competencies around four trainable skill sets: leadership, situation monitoring, mutual support, and communication (Agency for Healthcare Research and Quality, 2014). The framework popularized specific tools now embedded in clinical practice worldwide, including SBAR (Situation, Background, Assessment, Recommendation) for structured handoffs, closed-loop communication for verifying that instructions have been received and understood, and the two-challenge rule, which empowers any team member to assertively voice a safety concern at least twice before escalating it further.

2.4 IPEC Interprofessional Competency Domains

The Interprofessional Education Collaborative identifies four core competency domains for collaborative practice: values and ethics for interprofessional practice, roles and responsibilities, interprofessional communication, and teams and teamwork (Interprofessional Education Collaborative, 2016). These domains have informed curricular reform across health professions education globally, reflecting a recognition that collaborative competence must be deliberately taught rather than assumed to emerge from clinical experience alone.

3. Communication as a Determinant of Patient Safety

Handoffs and transitions of care represent a particularly vulnerable point in the communication chain. Each transfer of responsibility—between shifts, between units, or between the operating theatre and the post-anesthesia care unit—requires the accurate transmission of a patient's clinical status, active issues, and anticipated needs. Standardized handoff protocols such as SBAR and I-PASS (Illness severity, Patient summary, Action list, Situation awareness, Synthesis by receiver) have been associated with measurable reductions in handoff-related errors when consistently applied (Starmer et al., 2014). Closed-loop communication, in which the sender of an instruction confirms that the receiver has correctly understood it, addresses a second common failure mode: the assumption that a message has been received simply because it has been spoken. In high-acuity, high-noise environments such as operating theatres and resuscitation bays, verbal orders that are not explicitly acknowledged and repeated back are disproportionately associated with medication errors and procedural mistakes.

“Communication failure, far more often than a deficit of clinical knowledge, is the thread that connects preventable adverse events across specialties and care settings.”

Psychological safety—the shared belief that a team is safe for interpersonal risk-taking—is a further precondition for effective communication (Edmondson, 1999). Team members who fear reprisal or embarrassment for raising a concern are less likely to speak up, even when they recognize a developing safety threat. This dynamic has been implicated in numerous high-profile adverse events in which junior staff observed a problem but did not feel empowered to escalate it, underscoring that communication is not merely a technical skill but is shaped by the relational and hierarchical culture of the team.

4. Teamwork Structures in Multidisciplinary Care

Effective teamwork in healthcare depends on more than the presence of multiple disciplines working in proximity; it requires shared mental models, clearly defined roles, and mechanisms for mutual monitoring and support. A shared mental model refers to a common understanding among team members of the patient's status, the plan of care, and each member's responsibilities within that plan. When shared mental models diverge—for example, when a surgeon and an anesthesiologist hold different expectations about the timing of a critical step—the risk of error increases substantially.

Briefings and debriefings, now standard practice in many surgical and procedural settings, serve to establish and reconcile these shared mental models. A preoperative briefing allows the team to confirm patient identity, procedure, anticipated critical steps, and any anticipated complications before the procedure begins; a postoperative debriefing allows the team to review what occurred, identify near misses, and capture lessons for future cases (Haynes et al., 2009). The World Health Organization Surgical Safety Checklist operationalizes this structure and has been associated with reductions in surgical morbidity and mortality across diverse healthcare settings.

Mutual support—the willingness of team members to assist one another and to redistribute workload during periods of high demand—further distinguishes high-performing teams from loosely affiliated groups of individual practitioners. This includes the practice of cross-monitoring, in which team members remain attentive not only to their own tasks but to the overall functioning of the team, enabling early detection of fatigue, task overload, or emerging error.

5. The Saudi Healthcare Context: Vision 2030 and Regulatory Alignment

The Kingdom of Saudi Arabia's Vision 2030 program has placed healthcare quality, workforce development, and system integration at the center of national reform, with the Health Sector Transformation Program articulating a shift toward value-based, patient-centered, and digitally integrated care. Communication and teamwork are directly implicated in each of these strategic priorities, as the transition toward integrated care networks and value-based payment models depends on the ability of professionals across disciplines and institutions to coordinate care around shared patient outcomes rather than isolated episodes of service.

Several national regulatory and institutional bodies shape the environment in which communication and teamwork competencies are developed, assessed, and sustained:

The Saudi Commission for Health Specialties (SCFHS) sets professional licensure and continuing professional development requirements, increasingly incorporating communication and interprofessional collaboration competencies into training curricula and examinations.

The Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI) embeds structured communication requirements—including handoff protocols, surgical safety checklists, and documentation standards—within its accreditation standards for hospitals and ambulatory facilities.

The Saudi Food and Drug Authority (SFDA) requirements for medication safety and adverse event reporting depend on accurate interprofessional communication among prescribers, pharmacists, and nursing staff.

The Nphies platform, which governs claims, eligibility, and clinical data exchange across payers and providers, reflects the broader national push toward interoperable information systems that reduce communication gaps arising from fragmented documentation.

The Mumaris+ professional registration system links licensure, scope of practice, and continuing education records, supporting role clarity—a foundational element of effective teamwork—across the health workforce.

Together, these institutions constitute a regulatory architecture within which communication and teamwork are not left to informal custom but are increasingly codified as measurable, accreditable, and licensable competencies. This alignment provides both the impetus and the infrastructure for the more granular, point-of-care framework proposed in the following section.

6. The BRIDGE Framework: An Integrative Model for Point-of-Care Communication and Teamwork

Building on the theoretical foundations reviewed above and the regulatory context of the Saudi healthcare system, this paper proposes the BRIDGE framework as an integrative, memorable structure through which healthcare teams can operationalize communication and teamwork at the point of care. The framework synthesizes established evidence-based tools—rather than replacing them—into a single conceptual bridge connecting individual clinical actions to team-level safety outcomes.

Element	Description	Representative Tool or Practice
Briefings	Structured pre-task alignment on plan, roles, and anticipated risks	Pre-procedure briefing; huddle
Respect	Psychological safety and flattened hierarchy that permit any team member to speak up	Two-challenge rule; graded assertiveness
Information-sharing	Standardized, complete transfer of clinical information at transitions of care	SBAR; I-PASS handoff
Debriefing	Structured post-task review of performance, near misses, and lessons learned	Post-operative debrief; morbidity review
Goal-alignment	Shared mental model of the patient's status and the plan of care across disciplines	Shared care plan; multidisciplinary rounds
Escalation	Clear, closed-loop pathways for raising and resolving safety concerns	Closed-loop communication; rapid response activation

The BRIDGE framework is deliberately structured as a cycle rather than a linear sequence: briefings establish the shared mental model that goal-alignment sustains throughout the episode of care; information-sharing and escalation operate continuously as conditions evolve; and debriefing feeds lessons learned back into the briefings of subsequent cases. Respect functions as the cross-cutting condition that makes each of the other five elements possible, since none of the structured tools embedded in the framework can function in a team culture where junior or non-physician staff do not feel safe raising a concern.

The framework is intended for use as an organizing structure for institutional communication and teamwork initiatives—informing training curricula, quality improvement audits, and accreditation self-assessment—rather than as a rigid checklist to be completed mechanically. Its value lies in providing a shared vocabulary that spans disciplines and can be consistently referenced across an organization's safety culture, education, and governance functions.

7. Barriers to Effective Communication and Teamwork

Despite broad consensus on the importance of communication and teamwork, healthcare organizations continue to encounter persistent barriers to their consistent implementation.

7.1 Hierarchical Culture

Traditional medical hierarchies, in which authority is concentrated in senior physicians, can inhibit the assertive communication that structured safety tools depend upon. Nurses, junior physicians, and allied health professionals may hesitate to challenge a senior clinician's decision even when they hold information relevant to patient safety, a dynamic well documented across multiple healthcare systems and cultural contexts.

7.2 Workforce Diversity and Language Variation

Multinational healthcare workforces, common in Gulf Cooperation Council countries including Saudi Arabia, introduce linguistic and cultural variation that can complicate communication, particularly during high-stress verbal exchanges where nuance and speed both matter. Standardized terminology and structured communication tools such as SBAR partially mitigate this risk by reducing reliance on idiomatic or context-dependent language.

7.3 Workload and Time Pressure

High patient volumes and staffing constraints compress the time available for briefings, debriefings, and thorough handoffs, creating pressure to abbreviate or skip these processes precisely when workload-related fatigue makes them most necessary. This dynamic aligns with the Job Demands-Resources model, in which excessive demands unmatched by adequate resources erode both individual well-being and the quality of team-based processes such as communication (Bakker & Demerouti, 2007).

7.4 Fragmented Documentation and Information Systems

Where clinical information is distributed across disconnected paper records, legacy systems, and multiple electronic platforms, team members may lack a single reliable source of truth regarding a patient's status, increasing reliance on informal and error-prone verbal transmission. National interoperability initiatives such as Nphies are intended to address this gap at a systemic level, though local implementation gaps between facilities and departments persist.

8. Strategies for Strengthening Communication and Teamwork

Evidence and practical experience point to several converging strategies through which healthcare organizations can strengthen communication and teamwork in a sustainable way.

Institutionalize structured communication tools (SBAR, I-PASS, closed-loop communication) as default practice rather than optional guidance, embedding them into electronic documentation templates where feasible.

Deliver recurring interprofessional simulation training that brings disciplines together to practice communication and teamwork skills under realistic, low-stakes conditions.

Cultivate psychological safety through explicit leadership behaviors, including leaders visibly inviting dissenting input and responding constructively when concerns are raised.

Align continuing professional development requirements under SCFHS and institutional CBAHI accreditation cycles with measurable communication and teamwork competencies, rather than treating them as a one-time training event.

Invest in interoperable clinical information systems that reduce reliance on informal verbal transmission of critical data across shifts and departments.

Conduct regular multidisciplinary debriefs and morbidity and mortality reviews that treat communication breakdowns as systemic learning opportunities rather than grounds for individual blame.

These strategies are mutually reinforcing: structured tools are more likely to be used consistently within a psychologically safe culture, and psychological safety is, in turn, reinforced when leaders model the use of those same tools in their own practice.

9. Discussion and Implications for Practice

The evidence reviewed in this paper indicates that communication and teamwork are not peripheral considerations in the pursuit of high-quality patient care but are themselves core clinical processes, directly implicated in the outcomes that quality frameworks such as Donabedian's model seek to explain. Within the Saudi healthcare system, the convergence of Vision 2030's transformation agenda with an increasingly structured regulatory architecture creates a favorable environment for the systematic adoption of frameworks such as BRIDGE, provided that implementation is supported by adequate training resources, leadership commitment, and realistic workload planning.

Healthcare administrators and quality leaders should consider communication and teamwork competencies as measurable dimensions of organizational performance, tracked with the same rigor applied to clinical outcome indicators. Embedding structured communication audits within existing CBAHI accreditation cycles, and linking demonstrated teamwork competencies to SCFHS continuing professional development requirements, would help ensure that these competencies are sustained over time rather than treated as a one-time training initiative disconnected from ongoing practice.

10. Conclusion

Communication and teamwork constitute foundational, evidence-supported determinants of patient safety and care quality across healthcare settings. Grounded in established models including Donabedian's structure-process-outcome framework, Reason's Swiss cheese model, TeamSTEPPS, and the IPEC competency domains, this paper has proposed the BRIDGE framework as an integrative structure for translating this evidence into consistent point-of-care practice. Within the context of Saudi Arabia's Vision 2030 healthcare transformation and its supporting regulatory institutions, sustained investment in structured communication tools, psychological safety, interprofessional training, and interoperable information systems represents a coherent and achievable pathway toward the safer, higher-quality, patient-centered care envisioned by national health policy.

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