



The Role of Interdisciplinary Collaboration in Improving Healthcare

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Abstract

Interdisciplinary collaboration has emerged as a central determinant of healthcare quality, patient safety, and workforce sustainability, extending beyond individual clinical competence to the coordinated functioning of multi-professional teams across nursing, medicine, pharmacy, rehabilitation, and allied health services. This paper proposes the SYNC Framework — Shared goals, Yielding hierarchy, Networked communication, and Continuous feedback — as an integrative model for understanding how interdisciplinary collaboration translates into measurable clinical, operational, and organizational outcomes. Grounded in the Interprofessional Education Collaborative (IPEC) competency domains, D'Amour and Oandasan's interdisciplinary education model, and TeamSTEPPS communication structures, the analysis examines collaborative mechanisms and role distribution across professional groups, the structural and behavioral barriers that most commonly undermine collaboration, and the applicability of the framework to multi-specialty hospital settings. The paper concludes that collaboration quality, rather than team composition or co-location alone, determines safety, efficiency, and workforce-wellbeing gains, and offers a structured set of recommendations spanning communication protocol design, accountability-linked team performance review, protected time for joint case planning, and psychological-safety reinforcement across professional hierarchies.

Keywords: interdisciplinary collaboration; interprofessional teamwork; patient safety; TeamSTEPPS; IPEC competencies; healthcare quality

Introduction

Healthcare delivery has grown increasingly specialized, distributing patient care across nursing, medicine, pharmacy, rehabilitation, and allied health disciplines whose coordination — not individual expertise alone — now determines clinical outcomes. Fragmented, siloed practice has been repeatedly linked to preventable adverse events, delayed care, communication-related errors at points of handoff, and workforce strain, while structured interdisciplinary collaboration has been associated with improved patient safety, reduced length of stay, more efficient resource use, and higher staff retention across acute, chronic, and rehabilitative care pathways.

The shift toward multi-professional, team-based models of care has been reinforced by accreditation frameworks and workforce regulation that increasingly require documented interdisciplinary rounding, defined scope-of-practice boundaries, and formal channels for cross-disciplinary communication. Yet the presence of these structural requirements does not, by itself, guarantee that collaboration occurs in practice; teams that share a physical unit or an electronic record do not automatically share decision-making authority, mutual accountability, or a common definition of the patient's priorities.

Despite broad endorsement of team-based care in policy and accreditation standards, the literature offers limited conceptual clarity on which specific mechanisms convert multi-professional presence into genuine collaboration, and which structural gaps explain why some teams collaborate effectively while others, composed of equally competent individuals, do not. This paper addresses that gap by proposing the SYNC Framework, tracing its theoretical anchors, and examining its application to interdisciplinary practice, role distribution, and collaboration barriers within multi-specialty healthcare settings.

“A multi-professional team is not, by itself, a collaborative one; collaboration is a practiced structure, not a

byproduct of proximity.”

2. Theoretical framework: the sync model

The analysis draws on three established anchors. The Interprofessional Education Collaborative (IPEC) competency domains — values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork — define the individual competencies collaboration requires. D'Amour and Oandasan's interdisciplinary education model frames collaboration as an organizational property shaped by structure, governance, and shared processes rather than individual willingness. TeamSTEPPS contributes concrete communication tools — structured handoffs, closed-loop communication, and briefings — that operationalize collaboration at the point of care.

Synthesizing these anchors, the paper proposes the SYNC Framework, comprising four interdependent conditions under which interdisciplinary collaboration produces measurable value:

Shared Goals — a common, patient-centered objective that supersedes discipline-specific priorities and aligns team decision-making.

Yielding Hierarchy — deliberate flattening of traditional power distance so that any team member can voice safety concerns without status barriers.

Networked Communication — structured, closed-loop communication protocols, exemplified by TeamSTEPPS tools such as SBAR handoffs and team briefings.

Continuous Feedback — routine, bidirectional performance review that reinforces accountability and sustains collaborative behavior over time.

Within SYNC, shared goals and yielding hierarchy establish the relational preconditions for collaboration, networked communication operationalizes it at the point of care, and continuous feedback sustains it across time — distinguishing durable interdisciplinary practice from one-off team-building initiatives. Each pillar also corresponds to a specific theoretical anchor: shared goals and yielding hierarchy draw primarily on the values-and-ethics and roles-and-responsibilities domains of IPEC; networked communication operationalizes D'Amour and Oandasan's process dimension through TeamSTEPPS tools; and continuous feedback extends D'Amour and Oandasan's governance dimension into routine team-level accountability.

SYNC Pillar	Primary Theoretical Anchor	Practical Mechanism
Shared Goals	IPEC — Values and Ethics	Common, patient-centered care objectives across disciplines
Yielding Hierarchy	IPEC — Roles and Responsibilities	Flattened power distance; open escalation of concerns
Networked Communication	TeamSTEPPS	SBAR handoffs; structured briefings and debriefings
Continuous Feedback	D'Amour and Oandasan — Governance	Routine team-level performance and outcome review

3. Professional roles and collaborative contributions

Interdisciplinary collaboration draws on distinct but overlapping contributions from each professional group involved in patient care. Nursing staff typically function as the continuous point of contact and early-warning observers of patient status change; physicians hold primary diagnostic and treatment-decision authority while depending on team input for full clinical context; pharmacists contribute medication-safety review and dosing expertise, particularly for complex or high-risk regimens; and allied health professionals — physiotherapy, respiratory therapy, nutrition, and social work — address functional, rehabilitative, and psychosocial dimensions of care that fall outside the scope of nursing or medical practice alone.

Clarity regarding these role boundaries is itself a collaborative mechanism: ambiguity over who is responsible for a given decision or follow-up action is a common source of both delay and error, whereas well-defined, mutually understood roles allow team members to anticipate one another's contributions and reduce redundant or conflicting actions.

Professional Group	Primary Collaborative Contribution	Typical Coordination Point
Nursing	Continuous monitoring; early identification of status change	Shift handoff; bedside rounds
Medicine	Diagnostic and treatment-decision authority	Multidisciplinary case review
Pharmacy	Medication-safety and dosing review	Medication reconciliation; high-risk regimen review
Allied Health	Functional, rehabilitative, and	Discharge and care-

	psychosocial care	transition planning
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4. Mechanisms of interdisciplinary collaboration in practice

In practice, interdisciplinary collaboration is most visible in structured multidisciplinary rounds, joint case conferences, and shared care planning across nursing, medicine, pharmacy, and rehabilitation services. Accreditation standards increasingly embed interdisciplinary rounding and documented role clarity as quality requirements, reinforcing the governance dimension of D'Amour and Oandasan's model. Scope-of-practice regulation for individual professions further defines the roles-and-responsibilities competency within IPEC, ensuring that collaboration occurs within clearly bounded, accountable professional roles rather than ambiguous overlap.

Structured communication tools translate these conditions into daily practice: standardized handoff formats reduce information loss between shifts and disciplines, while regular team briefings and debriefings create the continuous-feedback loop that SYNC identifies as necessary for sustaining collaborative behavior beyond initial implementation. Joint case conferences additionally serve a relational function beyond information transfer, allowing team members to build the mutual familiarity and trust that make escalation of concerns — the behavioral core of yielding hierarchy — more likely to occur under time pressure.

5. Impact on patient safety, efficiency, and workforce wellbeing

Interdisciplinary collaboration influences three interconnected outcome domains. Patient safety improves through earlier identification of risk, reduced medication and handoff errors, and more comprehensive care planning that draws on multiple professional perspectives rather than a single discipline's assessment. Organizational efficiency benefits from reduced duplication of assessments, faster discharge planning, and better-coordinated resource use across departments, particularly at high-friction transition points such as intensive-care step-down and discharge to community or rehabilitative care. Workforce wellbeing is affected less directly but significantly: role clarity and shared decision-making reduce the moral distress and communication-related strain associated with burnout, while the experience of being heard within a flattened hierarchy is itself protective against the disengagement that follows repeated, unresolved safety concerns.

These domains reinforce one another under SYNC: improved communication reduces error-related rework, freeing time that supports both efficiency and workforce wellbeing, while flattened hierarchy that surfaces safety concerns earlier also reduces the accumulated strain of unresolved risk on frontline staff. Conversely, deficits compound in the same direction — poor handoff quality increases rework, which increases time pressure, which in turn discourages the very escalation behavior that yielding hierarchy depends on, illustrating why the four SYNC pillars are best addressed as a connected system rather than sequentially.

6. Barriers to effective collaboration

Persistent hierarchical norms that discourage junior or non-physician staff from voicing concerns, undermining the yielding-hierarchy condition.

Role ambiguity or overlap between disciplines, particularly where scope-of-practice boundaries are inconsistently applied.

Inconsistent use of structured communication tools, with handoff quality varying widely across shifts and units.

Absence of routine, team-level performance feedback, leaving collaboration reliant on individual initiative rather than institutional structure.

Time and staffing pressures that reduce opportunities for joint case discussion and shared care planning.

Each barrier maps to a specific SYNC pillar deficit: hierarchical norms reflect an unmet yielding-hierarchy condition, inconsistent handoffs reflect weak networked communication, and the absence of team-level review reflects an underdeveloped continuous-feedback pillar, while role ambiguity undermines the shared-goals condition by leaving team members uncertain which objective they are jointly responsible for. This mapping allows the framework to function diagnostically rather than treating collaboration failure as a single undifferentiated problem, directing managerial attention to the specific structural gap rather than to team composition or individual attitude alone.

7. Discussion and implications for healthcare management

The SYNC analysis suggests that healthcare management should treat interdisciplinary collaboration as a governed process rather than an emergent cultural outcome. This implies embedding structured communication tools as mandatory practice rather than optional training content, extending accountability for collaborative behavior into individual and team performance review, and protecting dedicated time for joint case discussion within clinical workflows. Where these structural supports are absent, team-building initiatives are unlikely to produce durable gains, regardless of the goodwill of individual practitioners.

A further implication concerns measurement: because collaboration quality, rather than mere team presence, is the operative variable, performance indicators should capture process measures — handoff completion rates, escalation frequency, joint-planning attendance — alongside outcome measures such as adverse-event rates and

length of stay. Tracking process indicators allows managers to identify a weakening SYNC pillar before it manifests as a safety or efficiency outcome, rather than discovering the deficit retrospectively through incident review.

8. Application within multi-specialty healthcare settings

Multi-specialty hospital settings, where patients frequently move between surgical, medical, and rehabilitative services within a single admission, present a concentrated test of the SYNC Framework. Transition points between specialties — for example, from surgical to medical management, or from acute to rehabilitative care — are precisely where shared goals are most likely to fragment, as each specialty's discharge or transfer criteria may differ. Applying SYNC at these transition points means establishing a single, jointly agreed treatment objective before transfer, using standardized transfer documentation as the networked-communication mechanism, and scheduling a brief joint follow-up review as the continuous-feedback step confirming the transfer's clinical and administrative completeness.

Embedding this pattern consistently at every specialty transition, rather than only within a single unit's daily rounds, extends interdisciplinary collaboration across the full continuum of a patient's admission and reduces the accumulation of small, transition-point gaps that individually appear minor but collectively account for a disproportionate share of delay and error.

9. Conclusion and recommendations

Interdisciplinary collaboration improves healthcare outcomes when shared goals, flattened hierarchy, structured communication, and continuous feedback operate together as a governed system rather than as isolated team-building efforts. The SYNC Framework offers healthcare managers a diagnostic structure for identifying which condition is missing where collaboration underperforms, and for extending that diagnosis across specialty transitions rather than confining it to single-unit practice.

Mandate structured handoff and briefing tools (e.g., SBAR) across all interdisciplinary care transitions, including cross-specialty transfers.

Embed collaborative-behavior indicators within individual and team performance evaluation, alongside standard outcome metrics.

Protect dedicated time within clinical schedules for joint case review and shared care planning.

Reinforce psychological safety training to support genuine hierarchy flattening rather than nominal flattening alone.

Track process-level collaboration indicators — handoff completion, escalation frequency, joint-planning attendance — as leading measures alongside outcome data.

Standardize a joint objective-setting step at every cross-specialty transfer point to prevent fragmentation of shared goals during care transitions.

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