INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND INNOVATIVE STUDIES
ISSN: 2820-7157
www.ijsrisjournal.com

February 2024 Volume 3 Number 1 37-46

Received Date: 26 December 2023 Accepted Date: 17 January 2024 Published Date: 1 February 2024

Interprofessional Collaboration in Healthcare: A Narrative Review of Physicians, Pharmacists, Physiotherapists, and Nurses, 2023–2024

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ABSTRACT

Background: Patients with multimorbidity, complex medication regimens, and rehabilitation needs often receive care from physicians, pharmacists, physiotherapists, and nurses. Coordination among these professionals is widely promoted, yet recent evidence varies by setting and outcome. Objective: This narrative review synthesizes research published from 2023 roles, barriers, and implementation. Methods: Targeted searches of PubMed-indexed records and publisher platforms were conducted for 2023–2024 publications using combinations of "interprofessional collaboration," "team-based care," "physician," "pharmacist," "physiotherapist," "nurse," "patient outcomes," and "interprofessional education." Recent

systematic, scoping, realist, and qualitative studies directly relevant to the professions or care teams were prioritized.

This was a narrative review rather than an exhaustive systematic review; no pooled analysis or PRISMA selection count is claimed. Results: Recent evidence suggests that interprofessional education can improve professional knowledge and mutual respect, while clinical collaboration is associated with promising but context-specific outcomes. Pharmacist–physician collaboration has most often been studied in primary care and medication management. In hip-fracture pathways, team-based care involving nurses and physiotherapists may improve function and reduce length of stay, although certainty remains low. Across settings, role ambiguity, hierarchy, workload, fragmented communication, and payment systems that reward separate services impede collaboration. Conclusion: Effective collaboration requires defined roles, shared goals, dependable communication, organizational support, and patient participation. Future studies should measure patient-important outcomes and describe which team components produce benefit in different health systems.

Keywords: interprofessional collaboration; physicians; pharmacists; physiotherapists; nurses; team-based care; patient-centred care.

1. INTRODUCTION

Modern healthcare depends on contributions from multiple professions. Physicians diagnose illness and coordinate clinical decisions; pharmacists contribute expertise in medicines, safety, and adherence; physiotherapists support mobility, function, and rehabilitation; and nurses provide continuous assessment, treatment, education, and care coordination. Their responsibilities overlap around the patient, but professional training, work routines, and institutional structures can keep their decisions separate.

Interprofessional collaboration (IPC) refers to professionals from different disciplines working together with patients and caregivers to plan, deliver, and evaluate care. It is more than co-location or referral: meaningful collaboration involves communication, mutual role understanding, shared decisions, and accountability for common goals. Recent literature emphasizes that IPC operates at several connected levels, including individual relationships, professional roles, interactions, and organizational structures (Dib & Belrhiti, 2024).

The need for collaboration is especially visible in primary care, chronic disease management, medication review, hospital transitions, and rehabilitation. However, evidence of benefit should be interpreted carefully. Improvements in professional attitudes or knowledge do not automatically demonstrate better patient outcomes, and results from one condition or country cannot be generalized to all teams. This article reviews recent evidence published from 2023 to 2024 and considers what it implies for interprofessional teams that include physicians, pharmacists, physiotherapists, and nurses.

The four professions contribute different but connected forms of expertise. Physicians usually establish diagnoses and treatment priorities; pharmacists identify medication-related problems and support safe, effective use; physiotherapists assess movement, function, and rehabilitation potential; and nurses maintain continuous observation, coordinate transitions, and translate care plans into daily practice. These are broad descriptions rather than fixed boundaries: scope varies by jurisdiction, setting, competence, and local policy. Recent work on primary-care physiotherapy, pharmaceutical care, and interprofessional role understanding shows that teams can underuse expertise when other members do not know what a profession can contribute (Roch et al., 2024; Lichnerová et al., 2023; Patel et al., 2024).

This review uses “interprofessional” to describe shared work across professions and “multidisciplinary” when sources use that term for a team that may coordinate contributions without necessarily making decisions jointly. This distinction matters because a service can include several disciplines yet retain siloed workflows. The review therefore considers communication, shared planning, role negotiation, patient participation, and organizational support as features of collaboration, rather than counting professional categories alone (Dib & Belrhiti, 2024; Dinh et al., 2024).

2. REVIEW METHODOLOGY

A targeted narrative search was conducted for publications dated January 2023 to 12 November 2024. Searches used PubMed-indexed records and publisher pages, with combinations of terms for interprofessional collaboration, team-based care, interprofessional education, physicians, pharmacists, physiotherapists, nurses, medication review, rehabilitation, and patient outcomes. Systematic and scoping reviews, realist reviews, meta-analyses, and qualitative studies were considered when they addressed collaborative healthcare practice or at least two of the professions in scope.

The purpose was to synthesize recent findings and identify recurring patterns rather than calculate a comprehensive estimate of the effect of IPC. Selection was relevance-based; no exhaustive database search, duplicate screening, formal risk-of-bias assessment, or PRISMA flow diagram was completed for this article. Findings from the included reviews and studies are therefore reported as published and are not presented as results from a new systematic review.

The evidence was organized thematically around (1) profession-specific roles and shared care, (2) interprofessional education and communication, (3) patient and service outcomes, (4) barriers and facilitators, and (5) implications for implementation and research. Priority was given to systematic reviews, meta-analyses, scoping and realist reviews, and primary qualitative studies that explicitly addressed collaboration. Studies concerning a wider group of professionals were included when their findings were relevant to the four professions or to the conditions that enable team-based care.

The date range refers to publication dates, not necessarily the search periods used by the included reviews. Some reviews published in 2023–2024 synthesize older primary studies; they are included as current syntheses, not as evidence that all underlying research was conducted during those years. The scope is English-language and targeted, and the synthesis is narrative. Consequently, it cannot establish completeness, rank interventions, or provide a pooled effect estimate across heterogeneous settings.

3. RECENT EVIDENCE

Table 1 presents a selection of recent publications that illustrate the breadth of evidence across education, primary care, rehabilitation, organizational conditions, and professional perspectives.

The literature is unevenly distributed. Community-pharmacy research has concentrated on medication review and chronic disease indicators; physiotherapy research has increasingly examined access, primary-care roles, and rehabilitation; nurse–physician work has often focused on communication and workforce experience; and studies of all four professions together remain less common. Reviews of multidisciplinary primary-care models report varied team composition and outcome measures, making direct comparisons difficult (Jokelin et al., 2024; Bates et al., 2024; Ansari et al., 2024).

For interpretation, it is useful to distinguish structural inputs (staffing, payment, information systems), team processes (communication, role clarity, joint decisions), intermediate outcomes (knowledge, trust, satisfaction, referral patterns), and patient outcomes (function, symptom burden, medication safety, experience, and continuity). Recent reviews frequently measure the first three categories more consistently than long-term patient outcomes. This imbalance is a central limitation of the current evidence base (O'Leary et al., 2024; Morgan et al., 2024).

Table 1: Selected publications on interprofessional collaboration published between 2023 and 2024.

Year	Study	Main contribution
2023	Saragih et al.	IPE meta-analysis: improved interprofessional knowledge and mutual respect; patient outcomes were not established.
2023	Angibaud et al.	Nineteen primary-care trials; pharmacist collaboration most often involved medication review with physicians.
2024	Dib & Belrhiti	Twenty-nine studies mapped individual, interactional, professional, and organizational dimensions of IPC.
2024	Archer et al.	Scoping review linked fee-for-service funding and workforce inequalities to weaker service integration.
2024	Sebastião et al.	Patients and professionals viewed case conferences positively, but cited time, cost, payment, and coordination barriers.
2024	Åhlund et al.	Nurse–physiotherapist learning was supported by regular interaction and team climate; structural and cultural barriers persisted.
2024	Salar et al.	In Pakistan, physician–pharmacist–nurse collaboration during prescription review was often episodic and dyadic.
2024	Tonapa et al.	Hip-fracture team pathways may improve function and shorten admission; outcome certainty was low to very low.

3.1 Professional roles and shared care

Recent studies describe collaboration as a process that requires both professional contribution and a structure for combining that contribution. In primary care, pharmacist involvement has commonly followed a sequence of medication review, a patient interview, and recommendations communicated to the physician. Angibaud et al. (2023) included 19 studies in their systematic review; most examined physician–pharmacist collaboration, often in cardiovascular care. Positive findings were reported mainly for blood pressure, while the review identified a need for controlled research across a wider range of conditions and patient outcomes.

Nurses and physiotherapists also need reliable coordination, particularly when mobility, transfers, pain control, and discharge plans depend on decisions made across professional boundaries. A 2024 scoping review found that interprofessional learning was facilitated by opportunities to become familiar with each other's roles, regular interaction, supportive team climates, leadership, and shared clinical spaces. Barriers included limited time and staffing, organizational separation, restricted opportunities for joint work, and hierarchical workplace cultures (Åhlund et al.,

2024).

The professional roles should be complementary rather than interchangeable. Role clarity helps teams know who assesses a problem, who makes or recommends a decision, how a recommendation is documented, and who follows up. The evidence also suggests that collaboration can remain dyadic: a physician may communicate with a nurse or pharmacist separately, while the full team rarely makes a shared decision. In a 2024 qualitative study in Pakistan, participants described triadic physician–pharmacist–nurse collaboration during prescription review as uncommon and often episodic (Salar et al., 2024).

Physiotherapists can contribute to early assessment of musculoskeletal conditions, self-management, prevention, and functional recovery, while coordinating with physicians and nurses when symptoms, comorbidities, or mobility risks require broader assessment. A 2024 scoping review found that primary-care physiotherapy roles were diverse but that other team members' limited knowledge of physiotherapy scope could complicate referrals and collaboration (Roch et al., 2024). This points to a practical need for referral criteria and brief role-orientation within teams, especially where physiotherapists are newly integrated into primary care.

Pharmacists can strengthen medication reconciliation, review complex regimens, identify interactions and adverse effects, counsel patients, and communicate recommendations to prescribers and nurses. Their impact depends on access to relevant clinical information, timely communication, professional authority, and a clear process for acting on recommendations. Reviews of clinical pharmacy implementation note that service design and implementation reporting are inconsistent, which makes it difficult to identify the best staffing or integration model (Paolinelli et al., 2024). Collaborative roles should therefore specify responsibilities and response times, rather than assume that co-location alone creates integrated practice.

Nurses often provide the continuity that links assessment, treatment, patient education, monitoring, and discharge. Physician–nurse collaboration has been associated with staff outcomes such as job satisfaction, autonomy, and moral distress, which can influence workforce stability and the reliability of care delivery (Labrague, 2024). Shared care plans should make nursing observations visible in clinical decisions and ensure that changes to medication or rehabilitation plans reach the bedside and the patient.

Joint treatment and supervision are additional forms of collaboration. A review of allied-health co-treatment found examples of professionals delivering care together but also noted that published descriptions and evaluations were limited (Slater et al., 2024). Interprofessional supervision may help clinicians reflect on complex cases and understand boundaries across professions, although evidence about outcomes and implementation remains developing (McGuinness & Guerin, 2023).

3.2. Education, communication and team development

Interprofessional education (IPE) is intended to help learners understand other professions, communicate across disciplines, and prepare for collaborative practice. Saragih et al. (2023) synthesized 11 studies and found small improvements in attitudes or mutual respect (standardized mean difference 0.14, 95% CI 0.01–0.28) and a larger improvement in interprofessional knowledge (standardized mean difference 0.43, 95% CI 0.22–0.65). These outcomes support IPE to develop professional readiness, but they do not by themselves prove that education improves clinical outcomes or patient safety.

Team development should continue after graduation. Joint case reviews, bedside rounds, medication reconciliation, shared care plans, and structured handovers create routine points for exchange. Teams benefit when communication is concise, accessible, and linked to a named responsibility and follow-up date. Shared electronic records can support this work only when professionals have appropriate access, the information is current, and team members agree on how to use it.

Patients should be treated as participants in collaborative decisions. In a 2024 qualitative study of case conferences involving patients, nurses, physiotherapists, pharmacists, and physicians, participants generally saw potential value for older people, people with multimorbidity, and patients with complex chronic conditions. Many patients wanted to take part. The same study identified practical concerns about staff time, costs, remuneration, and coordination, and some physicians were more cautious about feasibility (Sebastião et al., 2024).

IPE should be designed around authentic tasks, not only classroom exposure. Medication reconciliation, discharge planning, falls prevention, and chronic-disease case discussions give students opportunities to practice listening, clarify responsibilities, and negotiate shared plans. A 2024 scoping review of healthcare IPE described gains in competency development while also identifying challenges in assessment, curriculum integration, and translating learning into clinical settings (Patel et al., 2024). Evaluation should therefore include observed teamwork and follow-up in practice, alongside self-reported attitudes.

Professional learning can also be developed through joint practice. A 2024 Canadian survey of physiotherapists and

patients during the COVID-19 period documented experiences of coordination and communication in team-based care, highlighting that collaboration must remain workable when access and usual contact patterns are disrupted (Ndateba et al., 2024). Pharmacy–physiotherapy education initiatives offer another opportunity to connect medication safety with exercise and rehabilitation decisions, while giving learners a concrete reason to understand each other's scope (Pharmacy and Physiotherapy Interprofessional Education and Practice, 2024).

Reliable communication requires a shared minimum dataset: the patient's priorities, current clinical concerns, medication changes, functional status, agreed actions, named owners, and follow-up. Digital tools may support information exchange across settings, but they can also reproduce fragmented workflows when platforms are incompatible or responsibilities are unclear. A 2024 scoping review proposed a framework distinguishing digitally supported communication, coordination, cooperation, and collaboration; this is useful because technology can transmit data without creating shared decisions (Dinh et al., 2024).

Team learning also depends on psychological safety and professional respect. Nurses, pharmacists, and physiotherapists need practical routes to raise concerns and have recommendations acknowledged. Qualitative research in nursing-home teams identified communication, role understanding, trust, mutual recognition, leadership support, protocols, and technology among conditions shaping collaboration (Van den Broeck et al., 2023). Similar mechanisms are reported across acute-care settings, although local hierarchy and staffing determine whether they are achievable (Pradelli et al., 2024).

3.3 Effects on patient care and health services

The strongest recent evidence for clinical effects is condition- and setting-specific. In older adults with hip fractures, a 2024 systematic review and meta-analysis included 12 randomized trials of interprofessional collaborative practice, commonly involving nurses, geriatricians, orthopedic teams, and physiotherapists. The review reported a mean hospital stay reduction of 2.26 days and higher Barthel Index scores at six and twelve months. The quality-of-life result was modest and sensitive to analysis choices, mortality results were inconclusive, and certainty ranged from very low to low (Tonapa et al., 2024). These findings support coordinated pathways as promising, while limiting claims about broad or certain benefits.

Pharmacist-involved primary-care interventions have more often evaluated disease indicators, especially cardiovascular outcomes, than broad measures of patient experience, access, or continuity. Angibaud et al. (2023) reported positive effects principally on blood pressure among included studies. This evidence supports integrating medication expertise into primary care, but it does not establish identical effects across diseases, models of practice, or health systems.

Collaboration can also affect professional knowledge, attitudes, workflow, access, and service integration. These intermediate outcomes matter because they may enable safe and coordinated care. They should nevertheless be reported separately from patient outcomes. A review of interprofessional education found measurable changes in knowledge and mutual respect, while a scoping review of healthcare funding found that service organization and payment arrangements can either support or obstruct integrated practice (Saragih et al., 2023; Archer et al., 2024).

In chronic disease and community settings, team-based models can bring medication expertise, nursing follow-up, and allied-health support closer to patients. A 2024 meta-analysis of multidisciplinary teamwork in non-hospital settings reported effects across healthcare and patient outcomes, but the underlying programs differed in composition and intervention intensity (Shi et al., 2024). Two reviews of pharmacist–community health worker collaboration described medication adherence support, education, and culturally responsive follow-up, while noting that objective adherence measurement was uncommon (Bandiera et al., 2024a, 2024b). These findings are relevant to interprofessional practice but do not establish that every team model will improve adherence or disease control.

At the service level, primary-care reviews describe potential gains in access, capacity, and management of needs that may otherwise fall between services, alongside concerns about continuity and unclear professional scopes. Evidence on clinical and economic outcomes includes many pharmacist-focused studies and fewer studies of physiotherapists or combined teams (Jokelin et al., 2024; Bates et al., 2024). Evaluation should therefore report who delivered each component, which patients were reached, what comparator was used, and whether changes in access were accompanied by continuity and patient benefit.

Nursing and physiotherapy coordination is particularly relevant after surgery and for frail older adults, where safe mobilization, pain control, medication management, and discharge readiness interact. However, the specific contribution of each profession is often embedded in a pathway-level intervention. Reviews of balanced nursing teams and nurse–physician collaboration likewise show that team structure and working relationships may affect both staff and patient outcomes, but attribution to a single component is difficult (Goh et al., 2023; Labrague, 2024).

3.4 Barriers and facilitators

Across recent sources, barriers recur at several levels. At the interpersonal level, teams report communication gaps, low mutual trust, or limited understanding of other professional roles. At the professional level, hierarchy and unequal authority can prevent pharmacists, nurses, or allied health professionals from contributing fully. At the organizational level, workload, staff shortages, physical separation, fragmented records, weak leadership support, and insufficient time make regular collaboration difficult. At the system level, fee-for-service arrangements and unequal remuneration can reward separate activities rather than shared care (Archer et al., 2024; Dib & Belrhiti, 2024; Salar et al., 2024).

Facilitators mirror these barriers: explicit role descriptions, shared goals, supportive leadership, stable staffing, scheduled team time, accessible communication tools, interprofessional education, and patient involvement. In hospital practice, co-location or planned joint rounds can increase the likelihood that nurses and physiotherapists exchange information before decisions about mobility and discharge are made (Åhlund et al., 2024). In community care, structured case conferences may create a forum for patients and professionals to coordinate complex plans, provided that the model is practical and funded (Sebastião et al., 2024).

Dib and Belrhiti's 2024 scoping review of 29 studies conceptualized IPC across individual, interactional, professional, and organizational dimensions. This multi-level view is useful because training one professional group cannot resolve barriers caused by staffing models, authority structures, or reimbursement. Effective implementation therefore requires changes in both team behaviour and the systems in which teams work.

Role ambiguity is a practical barrier when referral routes are informal, when multiple professionals assume another person will follow up, or when professional scopes are poorly understood. In rehabilitation services, a recent systematic review identified poor communication, unclear roles, hierarchy, and fragmented pathways as recurring obstacles; structured communication, leadership, shared goals, and interprofessional education were recurring facilitators (Sam et al., 2024). These findings reinforce the value of explicit escalation pathways and routine review of unresolved actions.

Workforce and financing also shape the feasibility of collaboration. Time spent in case conferences, joint visits, medication review, or shared documentation may not be recognized by activity-based payment systems. Reviews of funding and team-based primary care describe the need to align incentives, staffing, and governance with the work expected of teams (Archer et al., 2024; Liang et al., 2024). Implementers should monitor workload displacement and ensure that collaboration does not simply add unpaid tasks to existing roles.

Digital systems can facilitate coordination when they make plans and decisions visible across disciplines, but privacy restrictions, poor interoperability, alert burden, and unequal access can limit their value. Interprofessional networks also depend on relationships across organizational boundaries, not only within a single clinic or hospital. Recent syntheses recommend attention to governance, communication channels, team learning, and patient and caregiver inclusion as linked mechanisms (O'Donnell et al., 2024; Dinh et al., 2024).

3.5 Implications for practice and research

Healthcare organizations can begin with a defined clinical pathway and a small number of shared outcomes. Teams should specify who is responsible for medication review, clinical escalation, rehabilitation assessment, patient education, and follow-up. Regular interdisciplinary meetings should focus on decisions that require more than one profession and include the patient when appropriate. Leadership should protect time for these activities and ensure that professional contributions are recognized in workload and payment arrangements.

Implementation should be evaluated at multiple levels: team functioning and role clarity; care processes such as medication reconciliation, timely referrals, and discharge planning; patient outcomes such as function, symptoms, adverse drug events, experience, and readmissions; and service outcomes such as length of stay, access, and costs. The 2024 realist review by Balague-Viladrich et al. reinforces the need to understand how interventions interact with local context and mechanisms, rather than assuming the same collaboration strategy will work everywhere.

Future research should use clear definitions of collaboration, distinguish interprofessional education from collaborative practice, and report the professions actually involved. Studies should include patients and settings outside large hospitals, such as primary care and community rehabilitation. Researchers should also measure whether benefits persist, which team components are active, how costs and workload are distributed, and whether interventions reduce inequities in access or outcomes. More direct evidence is needed on teams that include all four professions together, since many studies examine two-profession relationships or broader multidisciplinary teams without isolating each contribution.

For implementation, teams can use a compact operating agreement: a shared purpose; scope and referral criteria for each profession; a named coordinator for each patient; agreed

communication channels; a process for medication and rehabilitation changes; and a schedule for reassessment. Patients should be asked which outcomes matter to them, such as pain, mobility, independence, treatment burden, or confidence managing medicines. These priorities can guide an individualized plan while preserving each professional's accountability.

A pragmatic evaluation can combine process and outcome measures. Process indicators might include the proportion of eligible patients receiving multidisciplinary review, time from referral to assessment, medication discrepancies resolved, documented functional goals, and completion of follow-up actions. Patient outcomes may include function, adverse drug events, symptoms, experience, avoidable readmission, and quality of life. Balancing measures should capture staff workload, delays, duplication, and equity across age, language, disability, and socioeconomic groups.

Future studies should describe the intervention sufficiently for replication: team composition, training, frequency and format of meetings, decision authority, digital infrastructure, patient involvement, and implementation support. Cluster trials controlled before-and-after designs, and mixed-method evaluations may help distinguish the effects of a pathway from contextual changes. Realist and implementation research can explain why the same collaboration model works in one clinic and fails in another (O'Leary et al., 2024; Balague-Viladrich et al., 2024).

4. DISCUSSION

The recent literature presents a consistent rationale for collaboration but a more qualified picture of its effects. Education can improve professional knowledge and mutual respect; pharmacist involvement can improve selected clinical indicators; coordinated hip-fracture pathways may support functional recovery and shorter admissions; and case conferences appear acceptable to many patients and professionals. These findings arise from different designs and populations, so they should not be combined into one general estimate of benefit.

The main contribution of this review is to connect evidence about professional learning, clinical pathways, and organizational conditions. Collaboration is not simply an individual skill. It depends on whether staff can meet, whether responsibilities are clear, whether information can be shared, whether contributions are valued, and whether patients can participate. The 2024 review of healthcare networks and the 2024 funding review both emphasize organizational and system conditions, while 2024 profession-specific studies document how these conditions shape routine interactions (Dib & Belrhiti, 2024; Archer et al., 2024; Åhlund et al., 2024).

This review has limitations. It used a targeted narrative search rather than a registered systematic search, did not perform duplicate screening or formal risk-of-bias appraisal, and may have missed relevant publications. The included papers also vary in design, profession mix, country, care setting, and outcomes. Consequently, the synthesis is descriptive and should guide further inquiry rather than serve as a definitive estimate of intervention effectiveness.

The expanded evidence points to three conclusions. First, collaboration has multiple dimensions: shared tasks, professional relationships, organizational design, and patient participation. Second, the most direct outcome evidence remains concentrated in selected clinical models, particularly pharmacist-involved primary care and coordinated pathways for older adults. Third, implementation conditions are not peripheral; funding, leadership, staffing, professional status, and information systems shape whether collaboration can be sustained. Scoping reviews of hospital and primary-care teams similarly emphasize contextual variation and the need to assess team design alongside outcomes (de Gans et al., 2024; Ansari et al., 2024).

The evidence also cautions against treating "team-based care" as a single intervention. A weekly case conference, a pharmacist embedded in primary care, a physiotherapist-led access pathway, and a nurse-coordinated discharge process differ in purpose and mechanism. More transparent reporting and theory-informed evaluation would help identify which arrangements benefit which patients, how the workload is shared, and whether any gains persist beyond the initial implementation period.

Primary-care professionals' willingness to share responsibility is another implementation condition. A 2024 cross-sectional survey found variation by profession in willingness to transfer or share responsibilities, underscoring that role redesign requires dialogue, preparation, and agreement about accountability (Brandt et al., 2024). Concept analyses and qualitative studies of pharmaceutical care likewise emphasize trust, mutual knowledge, clear roles, and continuity when nurses, pharmacists, and physicians coordinate medication-related work (Yousefi et al., 2023; Lichnerová et al., 2023). Evidence linking nurse–physician collaboration with mortality remains limited and is based on a small observational evidence base, so it should be interpreted as an association rather than proof of causality (Schot et al., 2023). Cross-sectional and review evidence from intensive-care teams further points to competencies such as communication, shared decision-making, and role clarity, while reviews of professional attitudes emphasize continuing variation across settings and professions (Msimanga et al., 2024; Gregoriou et al., 2024).

CONCLUSION

Collaboration among physicians, pharmacists, physiotherapists, and nurses is most likely to support patient-centred care when teams combine clear professional roles with shared goals, regular communication, organizational support, and patient participation. Recent studies provide encouraging evidence for professional learning, medication management, and selected rehabilitation pathways, but benefits are not uniform and the certainty of patient-outcome evidence varies. Health systems should build collaboration into routine workflows and funding models, while research should test which arrangements improve meaningful outcomes across different populations and settings.

A sustainable model should make collaboration visible in everyday work: patients know whom to contact, professionals can access relevant information, recommendations receive a documented response, and responsibility for follow-up is clear. Strengthening these foundations offers a practical route toward safer medication use, more coordinated rehabilitation, and continuity across care settings. The next research step is to evaluate all four professions together in real-world pathways and to report patient outcomes, implementation costs, and professional workload with equal transparency.

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