The Review Of
DIABETIC
STUDIES OPEN ACCESS

Interprofessional Collaboration Between Medical And Nursing Teams To Enhance Quality Of Care For Patients With Chronic Diseases

Nedaa Saud Bokhari[1] , Sarah Fathallah Saleh[2] , Dr. Zainab Eissa Alhazmi[3] , Marwan Hussain Alhazmi[4] , Othman Rushdy Filfilan[5] , Ahmad Saad Alsharif[6] , Basim Mohammad Alsulaimani[7] , Dr. Mohammed Yousef Alhujuri[8]

[1]Consultant Diabetologist Al-Noor specialist Hospital.
[2]Alnoor Specialist Hospital Family Medicine and Diabetes management consultant.
[3]Consultant Family Medicine AlNoor specialist hospital.
[4]Internal medicine consultant King Abdulaziz hospitals.
[5]Internal Medicine and Adult Hematology King Abdulaziz hospital.
[6]Nursing Technician King Abdulaziz Hospital.
[7]Nursing Technician King Abdulaziz Hospital.
[8]King abdulaziz specialist hospital Internal Medicine.

Abstract

High-quality chronic-disease care requires active interprofessional collaboration (IPC), defined as team-based practice between professionals who have distinct, yet complementary, roles (Reese et al., 2021). This abstract synthesizes energy-source theory and the theory of interprofessional collaborative practice to highlight three IPC approaches relevant for medical and nursing teams: coordinated care through shared management plans, collaborative care via predefined roles and frequent consultations, and integrated care with joint frameworks, simultaneous input, and collective decision-making. It then presents a synthesis of IPC's positive clinical impact on chronic-disease-continuity, quality-of-care improvement, patient safety, personalized care, adherence support, shared decision-making, and patient-reported experience. Empowering IPC in chronic disease necessitates interprofessional education for pregraduate students and continual professional development for staff, engendered by interprofessional curricula, simulation, reflective practice, user engagement, implementation science, efficient workflows, and systemic leadership (Gucciardi et al., 2016). Concrete IPC operationalization entails synchronizing multiagency routines, establishing digital-interoperability requirements, leveraging telehealth, and nurturing privacy-conscious, safe-care cultures. By integrating theoretical foundations, practical actions, and contextual considerations, this work delineates a transformative pathway for chronic-disease care—one that remains sustainable amid growing service pressures while aligning with long-term systemic strategies to build capacity, enhance the user interface, and rectify quality-root causes.

1. Introduction

Collaborative practice is a global trend in health care aimed at improving quality. Collaboration between medical and nursing teams is particularly significant in the management of chronic diseases; yet interprofessional collaboration in chronic disease management is not routinely done. Interprofessional collaboration occurs when health care professionals from different backgrounds work together to plan, provide, and evaluate care. It enhances communication, respect, and shared decision-making, maximizing each member's expertise. «Care coordination», referring to the deliberate organization of patient care activities among stakeholders, and «care transitions», or the movement of patients between health care practitioners, are key aspects of chronic disease

management that require collaboration. Medical and nursing teams: The first group includes physician specialists, general practitioner–physicians, and other medical specialists such as physiotherapy and radiology. The second group comprises registered nurses, licensed practical nurses, nurse practitioners, nursing assistants, and resources pertaining to nursing.

Patients with chronic diseases utilize both acute and preventive health services, focusing on collaborative care and preventive care. Interprofessional collaboration improves health care quality and safety, reduces professional isolation, lowers burnout, and enhances job satisfaction. In the United States, chronic illness accounts for 75% of health care expenditure, with 47% of adults reporting at least one chronic illness, and 25% reporting multiple conditions. Additional requests for health care in the week preceding interviewing were 33% for chronic illness, compared to only 14% for the total group. Chronic disease management was identified by the World Health Organization as a priority for improving health care quality and efficiency. In Germany and other European countries, chronic conditions occupy a major part of the disease spectrum, constituting a major threat to individual health and diminished well-being. Chronic diseases require continuous treatment, affecting quality-of-life, participation in society, increased morbidity and mortality, complex care arrangements, and substantial use of health services. In 2020, the European Assembly declared chronic illness to be a priority disease area. A more recent trend shifted attention to the frequency with which chronic diseases occurred. A future key topic in health policy was identified as addressing patients suffering from chronic conditions. Swiss health authorities recognized the public health challenge posed by chronic disorders, and identified actions to improve chronic disease management. A significant body of evidence overwhelmingly supports the benefits of interprofessional collaboration for achieving safer and higher-quality patient care, yet its implementation remains limited. Interprofessional collaboration comprises distinct working concepts such as team care, multidisciplinary approaches, intersectoral interventions, and transitional care. The varying levels of engagement and collaboration point to the necessity for greater involvement, comprehensive technical assistance, political commitment, improved understanding of implementation techniques, availability of resources, and leadership free of bureaucratic obstacles to facilitate establishment of sustainable collaboration. Drawing upon this literature, dimensions were established for a comprehensive interprofessional framework enabling ongoing collaboration among medical and nursing teams to strengthen chronic disease management. Such coordination model was fruitful in supporting collaborative implementation within pilot projects featuring chronic diseases identified as national health policy priorities.

1.1. Background and Rationale

Preventable chronic diseases, and the rising number of patients affected by these, represent one of the most serious challenges facing health systems worldwide. The increasing shift of health systems from an acute- to a chronic-disease focus and the growing burden of morbidity and mortality associated with chronic disease place a premium on the seamless transition of care among providers across settings and the collaboration of multi-disciplinary teams in addressing and managing chronic-disease patients (Younas et al., 2023). Individual patients receiving chronic-disease-related care are typically in contact with multiple health professionals from various care providers and therefore have complex needs that can be better managed through interprofessional collaboration. Policy reports endorse interprofessional collaboration as a recognised approach to improve the quality of care (Pantha et al., 2020). A systematic review of the literature on interprofessional collaboration highlights its potential to lead to better communication and more efficient referrals, reduce risks associated with healthcare hand-offs, empower patients to make informed decisions regarding their health and lifestyle, produce a shared understanding of care roles and responsibilities among team members, and enhance job satisfaction (Reese et al., 2021). Visualisation of current practices, understanding of team roles, and the establishment of an

integrated shared-care plan facilitate timely collaboration, enhance the flow of information, and prevent the deterioration of patients with chronic complex needs and high care demands.

1.2. Scope and Definitions

Interprofessional medical and nursing teams encompass a diverse range of professionals and care settings. Team delineation depends on the healthcare setting, with different roles defined in hospitals, outpatient chronic disease clinics, and long-term care facilities. Nurses, nurse practitioners, and clinical nurse specialists undertake monitoring, treatment decisions, and patient education in collaboration with medical teams. Medical team composition varies widely among urban, semi-urban, and rural settings. Medical professionals often have overlapping roles with allied health professionals across many clinics. Direct cross-reference between the present section and interprofessional collaboration 'Roles and Responsibilities' is necessary.

For patients with chronic diseases appropriate care-pathway adherence requires joint input from medical and nursing teams, particularly regarding regular monitoring and actions following abnormal results. Pathways specifying concrete actions and documentation promote better monitoring and decision-making. In the long-term care sector, patients frequently average multiple chronic conditions, altering pathway applicability. Overlaying nursing roles with chronic disease pathways helps align norms in that context.

Figure 1: Interprofessional Collaboration Model

2. Foundations of Interprofessional Collaboration

Three conceptually distinct elements provide the foundation for a focused exploration of interprofessional education and its impact on chronic disease management. The first section outlines several interprofessional collaboration concepts and illustrates how they shape team training. This discussion directly connects to the second section, which examines methods and activities designed to prepare medical and nursing students for working effectively with chronic-disease patients. The integrated impact of interprofessional training on clinical outcomes is then addressed, with an emphasis on the improved quality of care provided by interprofessional clinical teams.

Interprofessional collaboration involves two or more professions working together in a way that one profession cannot do alone. In student training, this collaboration is aided by explicit interprofessional education, in which medical and nursing teams learn with, about, and from each other. Both students and patients gain from the effort. Patients with chronic disease require the specialized inputs of a doctor and a nurse, but the nurse coordinates their care throughout. Research has shown that the quality of care improves with this integrated management, reducing admissions to hospitals and increasing adherence to treatment. For both patients and students, quality improves through education and training.

2.1. Theoretical Frameworks and Models

Interprofessional collaboration (IPC) has been under research and development for decades, yet only a limited number of theories have guided early work (Prentice et al., 2022). Six frameworks remain influential today: the Interprofessional Education Collaborative (IPEC) competency framework, Barriers to Interdisciplinary Collaboration, Interprofessional Intervention, Models for Interprofessional Collaboration, Collaborative Problem-Solving, and the IPC theoretical framework. The IPEC framework articulates four domains: value and ethics, roles and responsibilities, interprofessional communication, and teamwork. Theory-based models for understanding IPC iteratively form hypotheses and collect data. The Barriers to Interdisciplinary Collaboration framework identifies factors hindering collaboration and derives recommendations. Interprofessional Intervention focuses on design principles for collaborative approaches. Models for Interprofessional Collaboration concentrates on initiatives, location, participants, duration, and objectives to enhance long-term services. Collaborative Problem-Solving identifies key practices across diverse teams and settings. A theoretical model further organizes IPC initiatives by their aims. Efforts in these areas can guide the development of well-structured teamworking practices, help clarify roles and responsibilities within the medical and nursing teams, and stimulate the formulation of care coordination frameworks. Research into the forms, contents, and impacts of IPC initiatives can also shed light on shared competencies and assisting tools needed to facilitate interprofessional teamwork and understanding between diverse professional groups.

Framework / Model	Key Focus / Domains	Relevance to Chronic Disease Care
IPEC Competency Framework	Values and ethics, roles and responsibilities, interprofessional communication, and teamwork.	Provides a structured approach to developing core competencies needed for effective team-based chronic care.
Barriers to Interdisciplinary Collaboration	Identifies factors that hinder collaboration to derive practical recommendations.	Helps in proactively addressing and mitigating common obstacles in medical-nursing team interactions.
Models for Interprofessional Collaboration	Focuses on the structure of collaborative initiatives (participants, duration, objectives) to enhance long-term services.	Guides the design and implementation of sustainable IPC programs for chronic patient management.
Collaborative Problem-Solving	Identifies key practices for effective problem-solving across diverse teams and settings.	Enhances the team's ability to jointly create and adapt care plans for complex patient needs.

Table 1: Summary of Theoretical Frameworks for Interprofessional Collaboration (IPC)

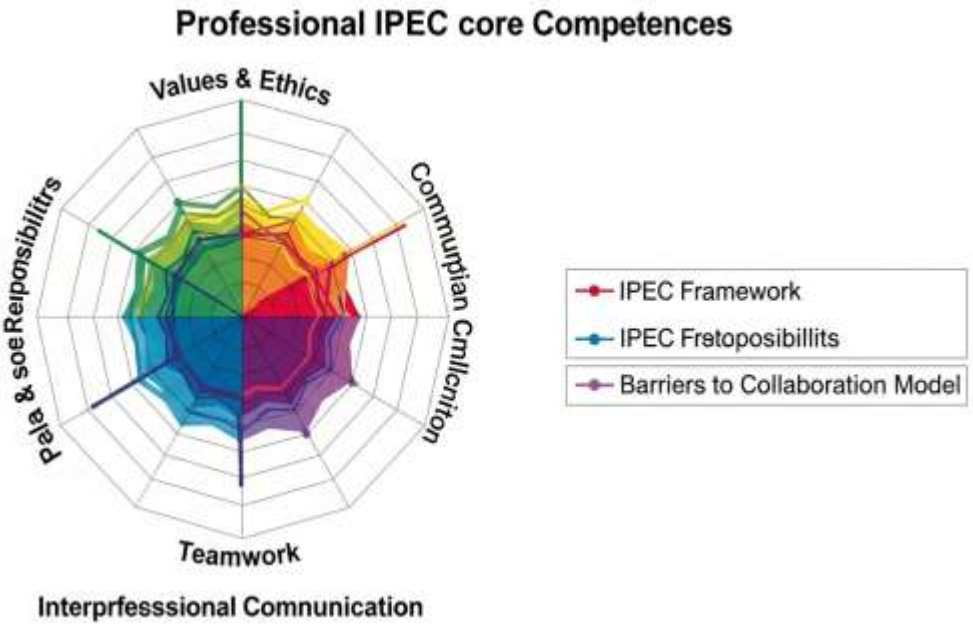

Chart 1: Comparative Focus of IPC Theoretical Frameworks

2.2. Roles and Responsibilities of Medical and Nursing Teams

Despite geographical, academic, and practical differences in the domains of medicine and nursing, collaborators on chronic-disease care generally perceive clear role delineation among the individual members of these two teams. Other relevant disciplines (e.g., psychology, social work, pharmacy) occupy specialized niches, advocating for greater integration of these professionals into highly structured IPC practices. Moreover, physicians and nurses value the contributions of their counterparts and collaborate on various shared initiatives (Sørensen et al., 2020).

The medical team addresses both direct medical interventions and broader determinants of health, conducting routine evaluation and adjustment of medications and treatment plans during each patient encounter and assessing problems that fall outside the nursing domain. The nursing team focuses on multiple process-oriented facets of care, including education, lifestyle, adherence, health behaviour, and personal aspiration, facilitating both initiative and opportunity to comprehendthe entire biomedical framework guiding patient care.

2.3. Communication and Teamwork Skills

Interprofessional collaboration (IPC) fosters seamless delivery of chronic-disease care by helping teams establish and maintain an overview of each patient's overall care. Collaboration becomes even more vital when multiple health issues demand concurrent attention. Teams must understand not only their respective roles and responsibilities but also when (or when not) to closely coordinate their inputs. Communication and teamwork skills are, therefore, fundamental IPC capabilities.

Successful and efficient collaboration relies on a shared vocabulary to discuss care processes, patient interactions, and system constraints. Adding urgency to the need for a common language, different medical and nursing institutions apply varied terminologies and definitions to similar concepts (Jantzen & J. Ford, 2012). Even organizations using the same terms may assign them different meanings, impeding interprofessional communication.

In chronic-disease management, confusion arises around such widely employed terms as "interprofessional," "team-based," and "multidisciplinary," which lack universally agreed definitions. The notion of "team" appears especially problematic: it is frequently misapplied to describe a group of professionals who individually attend to a patient but never interact with one another. Consequently, medical and nursing teams encounter significant difficulty in either finding a commonly accepted vocabulary or agreeing on an adequate characterization of IPC. A multidisciplinary roster initially proves helpful in specifying the respective contributions within an articulated IPC framework.

3. Clinical Impact of IPC on Chronic Disease Management

An effective interprofessional collaboration (IPC) programme shows benefits of care coordination and follow-up, while improving efficiency, safety, and patient-centred outcomes (Nagelkerk et al., 2017). Shared documentation in electronic health records enables efficient coordination, continuity, and support for self-management in diabetes management (H Morgan et al., 2020). Handoffs to a pharmacy team improve medication safety (Shepler, 2019). Individualised care plans that include goals of care created in partnership with patients have been associated with improved overall care.

Area of Impact	Description of the Positive Impact	Supporting Examples from the Text
Care Coordination & Continuity	Fosters clearer handovers and integrates decisions across the care continuum.	Reduces hospital admissions and improves adherence to treatment through integrated management.
Patient Safety & Error Reduction	Enhances safety through explicit communication during handoffs and better clinical reasoning.	Improves medication safety through collaborative handoffs to pharmacy teams.
Personalized Care Planning	Enables the creation of joint care plans describing individual goals, strategies, and responsibilities.	Physicians focus on disease management while nurses focus on lifestyle, adherence, and self-management support.
Adherence & Self-Management	Improves patient adherence to medication and health behaviors through reinforced self- management practices.	Engages patients and families in understanding health-team roles and articulating their own needs and goals.

Interprofessional education (IPE) can foster competencies for collaborative care at all stages of training, supported by an interprofessional team frameworks model, shared conceptualisation of chronic disease, recognition of patients' realities, and strategies for teamwork. Curricula emphasising complex cases that span disciplinary boundaries and incorporating IPE daylong experiences enhance readiness for teaching teamwork strategies. Simulation allows students to rehearse encounters in risky situations, roles, and conflicts, and joint simulation of complex, chronic-care encounters engages students from health disciplines in exploring roles, responsibilities, language, and collaborative approaches in managing diabetes. A case study of shoreside-manhattan-management incorporated a chronic-condition theme and mentoring approach to contextualise patient-care discussions for future competence development and teamwork approaches. Reflection enables capturing key takeaways on collaborative approaches. Building upon person-centred frameworks, IPE encourages competency consideration narratively rather than prescriptively. Engagement of patients and families in the educational process of nurses,

medical students, and residents supports understanding health-team roles and mutual articulation of needs, goals, and interests.

Table 2: Clinical Impacts of IPC in Chronic Disease Management

Figure 2: Clinical Impact of Interprofessional Collaboration on Chronic Disease Management

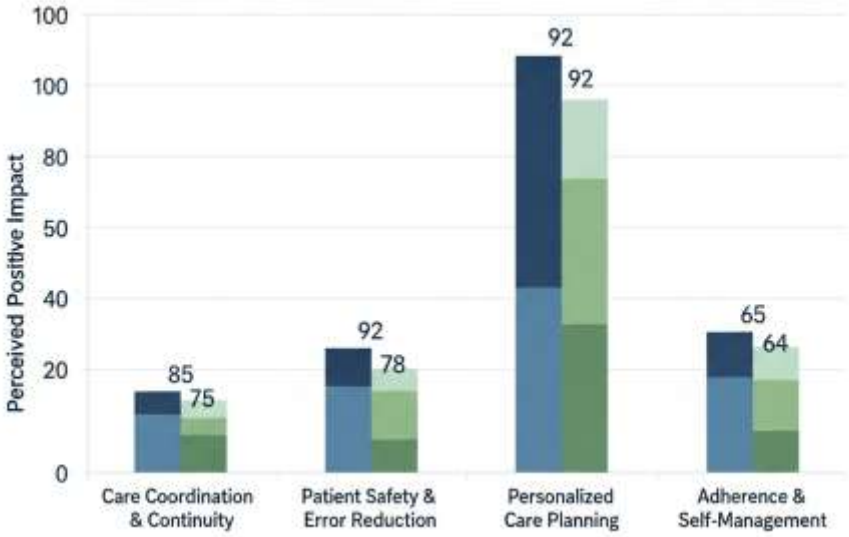

Chart 2: Key Clinical Impacts of Interprofessional Collaboration

3.1. Care Coordination and Continuity

Chronic diseases are among the leading causes of morbidity and mortality globally, exerting a significant burden on healthcare systems, patients, families, and society. Interprofessional collaboration (IPC) between medical and nursing teams can help alleviate this burden, yet teamwork in chronic-disease management remains suboptimal. To engage a broader audience and address cross-sectoral collaboration, this document distinguishes theory and practice while

ensuring complementary messages. Integrated care—holistic, patient-centered approaches that facilitate partnerships among professionals to deliver seamless care across time, place, and discipline—is a salient concept. Chronic diseases often necessitate care from primary care, specialty care, and nursing teams sequentially and simultaneously. Designated in the founding principles of interprofessional education and collaborative practice, IPC refers to interaction among diverse actors to achieve a common purpose. Robust theoretical frameworks and models support understanding of the factors that underpin IPC's effectiveness. Within chronic-disease management, the precise delineation of the roles and responsibilities of medical and nursing teams is essential. A clear specification of boundaries, responsibilities, and opportunities for collaboration streamlines interprofessional efforts and prevents misalignment. Equally important are communication and teamwork skills—shared capabilities and common language that support seamless transitions between professional domains. IPC fosters clearer handovers; underpins long-term, coordinated, and cohesive care; and integrates individual and joint decisions on goals and strategies across the continuum of care (Tomaschek et al., 2022) (Jackson et al., 2017).

3.2. Patient Safety and Error Reduction

In an era of increasing complexity in health care delivery, interprofessional education has developed as a strategy to enhance the quality of care. Educationally-based collaborations between disciplines reinforce the skills required for effective teamwork, such as collaboration, communication, shared leadership, and problem-solving. Frameworks for establishing a culture of interprofessional collaboration recognize three components: enhancing professional work attitudes (respect for others' roles); co-developing interdependence and accountability with respect to patients, the organization, and one another; and developing judgment, skill, and comfort to co-create solutions to complex problems through teamwork and interprofessional collaboration.

Teamwork is central to ensuring patient safety; an emphasis on safety is important in preventing disease and helping patients who present with complex chronic conditions. Explicit communication of the clinical situation, options, and reasons for actions at the time of handoff enhances safety and must be supported by habits of establishing a mutual understanding of the patient's context and the potential impact of treatment options. Interactive use of clinical handover tools developed by interdisciplinary teams contributes to improving clinical reasoning and collaborative engagement. A culture of safety and quality, strengthened through interprofessional education, is essential for the design of any curriculum and to support the effort of applying the same principles to patients. Improved communication among disciplines and professions supports a broader definition of safety from the narrow confines of the abatement of avoidable risk. Teamwork in interprofessional development pays dividends in the safety arena, especially concerning the chronic care of hand-sewn clients among advanced practice nursing personnel (Anne Xippolitos et al., 2011).

3.3. Personalized Care Planning

Most problems encountered in patient care arise at the interfaces between disciplines and professionals (Jean Jacques van Dongen et al., 2016). Care plans produced jointly by physicians and nurses—in chronic care settings, for example—are shared documents that describe the individual goals, strategies, and responsibilities that the two disciplines have agreed are necessary. Clearly delineated roles made it easier to establish interprofessional collaboration and prevented duplication of effort. Plans should be routinely updated according to patient-declared needs and progress, but schedules for revision are crucial. Additional recommendations included replacing nurse prescribing with a shared plan covering all care categories (medical, educational, etc.) and modifying the community health record to allow both teams to contribute to the document remotely. Joint care planning is practical where complementary interventions are needed. Family physicians focus, for example, on disease management, prescriptive issues, and childhood immunization, while nurses insist on adherence to care plans, lifestyle promotion, self-management support, and

prevention of communicable diseases. Interprofessional education could include training on joint care planning, since non-complementary planning can inhibit collaborative efforts.

3.4. Adherence Support and Self-Management

Support for adherence to medication and other health behaviours through installation and reinforcement of self-management practices by the nursing and medical teams is important in improving chronic-disease management.

Establishing a system by which patients supply information on barriers to treatment and preferred solutions leads to tedious discussion rather than pertinent improvement. To this end, a simplified slide listing barriers would potentially facilitate participation that meets patients' needs (Alain Ngangue et al., 2020). Interprofessional dialogues to establish patient objectives can enhance efficacy of chronic-disease management systems (J Gardner et al., 2017).

4. Interprofessional Education and Training

Joint education of medical and nursing students promotes understanding of team roles, language, and collaboration practices, enabling effective chronic-disease management. Suitable approaches include interprofessional simulation, case-based learning, and reflective practice that align with relevant clinical modules and reinforce collaboration concepts across curricula.

Care for patients with chronic diseases frequently necessitates interprofessional collaboration (IPC). Medical and nursing teams have distinct yet complementary functions—a delineation that may be unclear to trainees—underscoring the need for joint interprofessional education (IPE) at the predoctoral level (Morphet et al., 2014). An integrated curriculum delivers basic IPC principles within discipline-specific courses while offering jointly dedicated content that defines team roles, highlights collaborative advantages, fosters a shared operational language, and practises teamwork.

Simulation and case-based strategies furnish experiential learning opportunities to rehearse IPC skills early in the professional curriculum. These methods provide realistic scenarios where health-care providers must coordinate to achieve patient-centred objectives, thereby reinforcing the theory of practice duality advocated for chronic-disease education. Interprofessional simulation and reflective case discussions complement foundational clinical training by immersing students in authentic cooperation alongside chronic-disease lectures and aligning with broader IPE frameworks.

4.1. Curriculum Design for Medical and Nursing Learners

Achieving effective interprofessional collaboration (IPC) among medical, pharmacy, nursing, public health, and social work teams has become critical as the health care system moves toward coordinated care models for patients with chronic complex disease. A 4-week chronic-complex disease rotation for medical, nursing, and pharmacy students addresses this challenge within an innovative care paradigm. At the end of the rotation, students practice team-based, patient-centered assessment and management for chronic-complex disease; explicitly apply cultural fluency and other contextual factors to team decisions; and generally align with Interprofessional Education Collaborative (IPEC) core competencies. The rotation combines on-site clinics, Project ECHO telehealth clinics, interactive social-context modules, case-based group work, patient presentations, debriefings, and reflective assignments. A common student portfolio assessment with faculty feedback supports targeted IPC competency development. The structured schedule includes clinic and ECHO-attendance requirements, 28 learning modules (2 social-context modules, 4 communication skills workshops, 5 chronic-complex disease case modules, and 17 flexible modules), team–patient presentations, and self-selected reflective exercises. Program evaluation shows that integrated medical education for chronic diseases within diverse interprofessional teams significantly enhances learners' understanding of each discipline and team interdependence.

5. Workflows, Tools, and Technology

Workflow routines influence individual and team performance and apply to various levels of collaboration—individual, team, and interteam (S Mickelson et al., 2016). Coordinated workflows improve the quality of interprofessional collaboration by identifying shared decision points, specifying relevant information, and delineating actionable tasks and responsibilities. For chronic disease management, coordinated interprofessional workflows facilitate integrated care delivery between nurses and physicians across time, build a common understanding of care processes, and support the use of shared documentation in a joint electronic health record (EHR; (Lynn Atienza San Jose, 2017).

Workflows and accompanying tools contribute to collaborative management of chronic conditions through iterative routine adjustments that accommodate changes in patient status and align responses with evolving care plans. During multidisciplinary rounds, health information technologies can facilitate coordinated sharing of patient status updates and care-process alignment by automatically processing care plan item completion and outstanding action identification. These systems draw on EHR data and may extend their functionality through interconnectivity with nonclinical patient-monitoring platforms to capture status updates on patient-generated health data. Integration of such bilayered workflow-support tools with team coordination applications enables interconnected communication that promotes timely patient-adherence and self-management support across the care continuum.

5.1. Care Pathways and Multidisciplinary Rounds

Care pathways and multidisciplinary rounds are effective interprofessional collaboration (IPC) approaches to improve chronic-disease management across the medical and nursing sectors. Two widely adopted practices, they standardize interactions and decision points in day-to-day care, enabling integrated chronic-disease management. Care pathways define evidence-based clinical processes and relevant routine activities from diagnosis to discharge, specifying at each juncture who will conduct the activity and each conse-quent follow-up or additional action (Alcantara, 2018). The multidisciplinary rounds routine leverages the pathway components to synchronize a unified inter-professional approach to patient care through collective decision-making across the medical and nursing teams (Atkinson, 2018).

Medical and nursing teams participate in these activities collaboratively at defined points in the care pathway—initial assessment and weekly review, for example—identifying and jointly addressing problems in clinical status, care pathways, education, safety, comorbidity, and discharge planning along the way. Other disciplines may also contribute depending on the institution. Care and medication plans, adherence concerns, and self-management support are notable collaboration areas as well, complementing parallel efforts to enhance information-sharing practices through interoperable electronic health records (see Section 6.2) and explore telehealth initiatives for remote support (see Section 6.3) (Walton et al., 2019). All such efforts foster shared responsibilities, joint contributions to collaborative care plans, and strengthened patient engagement, collectively improving care quality for chronic-disease patients in active IPC settings.

5.2. Electronic Health Records and Information Sharing

Health information systems increasingly use Electronic Health Records (EHRs) to enable information sharing among health professionals and facilitate care coordination (F. J. Vos et al., 2020). The development of interoperable EHRs that allow joint access to patients' medical histories would overcome persistent challenges in a collaborative approach to chronic disease management. In their absence, consolidated EHRs shared through a well-defined protocol can help maintain synchronized clinical records and align prevention strategies, diagnoses, treatments, follow-ups, and other interventions throughout the care continuum. Health professionals and policy makers should make concerted efforts to implement interoperable solutions and adopt standardized

terminologies and documentation formats, allowing seamless information access and retrieval. The problem of chronic diseases involves the three interrelated aspects of limited attention to care-coordination continuity, the frequent occurrence of unconnected episodes, and the difficulty of implementing jointly defined management strategies and monitoring patient adherence at clinically distant times. Each team can develop its EHR with the support of its own professional society while also implementing modules dedicated to interprofessional and interdisciplinary communication throughout the system. Technology-based resources can assist the medical and nursing teams in their collaborative pursuit of care continuity and, in particular, in keeping jointly defined action plans up to date.

5.3. Telehealth and Remote Monitoring

Telemonitoring reduces hospital admissions and readmissions for chronic-disease patients by allowing home-care nurses to oversee patient status and changes. This technology helps care providers monitor patients who frequently require hospitalization or are at risk of chronic-degenerative diseases. Daily collection of blood pressure, weight, blood glucose levels and other vital signs is transmitted electronically for care-team review (Palmer, 2016). Health information and relevant educational materials are shared simultaneously. Through a secure web interface, home-care nurses receive alerts of scheduled recordings and receive follow-up requests when parameters are out of predetermined ranges.

Remote monitoring combined with home-care nursing is especially advantageous for patients with multiple morbidities as well as chronic diseases. Building on established trusting relationships, nurses are often the first to notice health changes. Having a nurse help interpret data and reinforce medical advice promotes adherence and improves outcomes. Telehealth allows nurses to offer education, thus lowering unnecessary medical referrals and calls to the physician's office. They have time to identify unmet needs for further assistance, and patient preference, travel time and timeliness can be discussed as care arrangements are made. In member-provided work, home-telemonitoring even becomes an extension of pre-existing engagement with chronic patients through motivational strategies. Telehealth provides back-and-forth communication instead of the one-way delivery inherent in pamphlet distribution. It makes it possible to answer individual questions in detail and share educational yet not clinical content.

6. Organizational and System-Level Enablers

To overcome the challenge of improving collaboration between medical and nursing teams, various organizational and system-level enablers are crucial. Institutional support at the highest levels and policies that delineate interprofessional collaboration (IPC) roles and responsibilities promote teamwork and reduce confusion. Resource allocation that balances workloads and facilitates the hiring of professionals with the most suitable skill sets further fosters a collaborative environment. The principles of IPC align well with quality improvement (QI) frameworks, making QI an ideal vehicle for implementing a multidisciplinary approach to managing chronic diseases (Anne Xippolitos et al., 2011). Good collaboration improves the processes of care in ways that help achieve standard QI goals such as adherence to clinical guidelines, patient safety, and prevention of complications (A. Lemay et al., 2010). IPC is therefore an important complement to the QI agenda of any healthcare organization.

At the leadership level, commitment and encouragement from high-level administrators, including chief medical, nursing, and operations officers, as well as quality improvement coordinators, is critical. High-level support is often best demonstrated through the establishment of institutional policies that create opportunities for collaborative practice. Support from executives and policymakers in all interprofessional programs is crucial to overcome communication barriers among medical, nursing, and other personnel. Senior leadership often defines the mandate for collaboration by determining a guiding vision and providing resources to implement it.

Collaborative programs should connect with institutional priorities such as improving care continuity or meeting the requirements of pay-for-performance programs, something that senior leaders can help facilitate.

The capacity of the medical/nursing team to work together is strongly influenced by the nature of the staffing mix and specific organizational resources. Pressures on staffing or the concentration of staff with certain skills can exacerbate professional isolation or hinder the establishment of effective collaborative structures. The careful adjustment of staffing levels, recruitment of specific experts, and reassignment of personnel may therefore be necessary. Organizations looking to strengthen IPC as part of their ongoing QI efforts should perform basic assessments—at the macro level, the existence of an explicit cycle of QI; at the meso level, the existence of a defined clinical focus for QI working groups; and at the micro level, an analysis of the interactions between different professional groups—certainly still an unfinished enterprise throughout much of the health system.

6.1. Leadership Support and Policy Frameworks

Leadership support and clear policy frameworks are essential to cultivating interprofessional collaboration (Anne Xippolitos et al., 2011) between medical and nursing teams in the management of patients with chronic diseases. Institutional endorsement elevates IPC as a priority, serving as a compass for workforce organization, resource allocation, and selection of tools and technologies. A documented policy foundation guides managerial actions to establish collaborative routines, delineates the scope of practice that frames joint work, and aligns strategic initiatives to create an environment conducive to teamwork.

Intertwined national and provincial arrangements underscore the urgency to enhance service quality for chronic disease care, the role of healthcare professionals from different disciplines in achieving this aim, and the potential impact of IPC in coordinating their respective contributions. Agenda-setting initiatives coupled with an enabling policy framework enable leaders to seize opportunities presented by outreach initiatives and integration strategies under consideration, positioning their organizations as key partners in provincial healthcare reform.

The current and future healthcare landscape calls for fresh approaches to delivering chronic disease services, approaches underscored by interprofessional partnerships, which are not limited to the medical and nursing disciplines. Moreover, IPC is both necessary and possible for various organisational capacities ranging from beginner to advanced. Governing agents have initiated IPC-related changes in diverse organisations including primary care networks, community health centres, family health teams, hospital outreach programs, and academic health centres, enhancing understanding that they, too, can chart an interprofessional journey. A systematic governance structure reinforces the IPC vision while supporting diverse local initiatives to address specific needs and preferences of chronic disease clients and the collaborative capacities of concerned professionals. Established organisations such as clinical governance and clinical coordination frameworks provide useful precedents. Frameworks delineating the distinct yet complementary perspectives of management and leadership also resonate and diversify the governance conversation.

6.2. Resource Allocation and Staffing Models

To fully understand how different professional teams collaborate, it is essential to first examine the internal dynamics that contribute to each team's effectiveness. This section, therefore, shifts focus to intraprofessional collaboration among nursing colleagues, as it forms a critical foundation for broader teamwork.

Intraprofessional collaboration is a relational and respectful process among nursing colleagues that allows for the effective use of the knowledge, skills and talents of all nursing designations to

achieve optimal client and health system outcomes. Effective teamwork promotes positive outcomes for patients and health care providers, as well as reducing incidence of missed nursing care and errors. Intraprofessional collaboration is associated with a decrease in hospital acquired pressure ulcers and patient falls. With over 19.4 million professional nurses worldwide and the benefits of effective collaboration on patient care, intraprofessional collaboration among nurses has become a necessity in today's healthcare system. The COVID-19 pandemic impacted the nursing shortage and the need for nursing staff to maintain quality patient care. During the pandemic some critical care areas adopted a new nursing care delivery model to ensure quality patient care. Areas that normally have a 1:1 patient to nurse ratio implemented a team-based nursing care delivery model. Because of the pandemic, some ICU nurses were deployed to care for very ill COVID-19 patients and general duty nurses were reassigned to ICUs for a period of time to work on a team-based nursing assignment. The ability to respond to rapid changes in the healthcare environment emphasizes the importance of ensuring that all nursing care staff work collaboratively to provide care. Little published evidence addresses both nursing care delivery models and high-quality intraprofessional collaboration. Accordingly, a study was undertaken to explore nursing care delivery models in acute care hospitals to understand how they promote intraprofessional collaborative care. The guiding research question was: How does the nursing care delivery model in your organization promote intraprofessional collaborative care?

6.3. Quality Improvement and Measurement

Health-care organizations must deliver quality- and safety-focused services while striving to meet changing demands to ensure positive outcomes and high patient satisfaction (L. Beck et al., 2013). Continuous quality improvement (CQI) principles view enhancement as a continual process with no defined endpoint but with a systematic plan precedented by analysis. Intrinsic to the CQI ethos is identification of key metrics aligned with organizational priorities for systematic evaluation of the effect of interventions designed to address high-priority topics and the detection of unintended consequences. Consequently, CQI is by nature interprofessional, represents a higher-order need pursued after foundational skills training and marketing investment for chronic-disease management has occurred, and aligns exposure to other sections of this work.

7. Patient and Family Engagement

Patient engagement in care delivery has been called a vital condition for the reconfiguration of health care systems (Monteiro Grilo & Custódio dos Santos, 2017). This innovative approach involves partnerships among patients, families, providers, and organizations, supported by mutual trust, respect, and shared information, decisions, and responsibilities. The goal of patient engagement is a service delivery system organized around the health systems and expectations of people and communities rather than diseases. The level of engagement must be appropriate to the individual patient and situation (Graffigna et al., 2020).

A continuum illustrates the degree of patient-provider information exchange, shared power, and joint involvement in decision-making affecting health organizations and systems. Health care stakeholders often overlook the opportunity to engage patients and families in their own care. Yet, extensive evidence links patient engagement with a broad array of beneficial health outcomes, reduced costs, improved quality of life, and enhanced safety. Although patient engagement is recognized as a cornerstone of quality care, major gaps persist in the extent to which health systems actively promote participation.

7.1. Shared Decision-Making

The shared decision-making (SDM) model forms a core component of clinical practice and establishes effective co-partnerships between patients and healthcare providers, including interprofessional partners (Chung et al., 2021). Traditionally, decision-making used to be dominated by the medical profession. Nowadays, patients require their rights to be realized, and

they want to be informed regarding their personal preferences and asked about their needs. These affect patients' health-related quality of life, either directly or indirectly. When every team member of the interprofessional collaboration works together, patients experience healthcare service in different aspects, and various suggestions for their illness are collected. The healthcare providers not only educate the patients of their rights but also guide them to express their thoughts and preferences during the shared decision-making process.

7.2. Cultural Competence and Equity

Cultural competence remains a vital component of quality chronic disease care. Effective interprofessional collaboration requires recognition of sociocultural diversity among patients and their families along with consideration of those factors when designing and implementing care strategies (E Johnson, 2012). Professional interactions by design adopt and reinforce a hierarchical structure reflective of society's power dynamics. Eliminating or mitigating that hierarchy facilitates open dialogue and empowers all team members to contribute to and help sustain optimal collaborative health care.

8. Challenges, Barriers, and Ethical Considerations

Communication barriers and hierarchical structures impede interprofessional collaboration (IPC) between medical and nursing teams, hindering effective teamwork and influencing patient outcomes (Younas et al., 2023). Strategies to reduce power differentials, establish a shared understanding of goals and tasks, and foster a culture of openness and support may encourage dialogue among team members. While many organizations are committed to providing IPC training to support efficient team interactions, such curricula for medical and nursing learners remain comparatively rare. Furthermore, shared electronic health records (EHRs) and other tools that facilitate the exchange of information and data across the continuum of care are not universally available. To address access challenges, it is essential first to map document flow, identify documentation needs throughout patient journeys, and define which health workers require real-time access to specific data.

Confidentiality, privacy, and consent considerations also impose additional constraints on intermediation and patient data-sharing practices. The capacity for health-care professionals to share information and communicate unimpeded within workplaces is vital to achieving individualized health and care objectives for complex patients and providing safe, orderly, coherent, and organized delivery across various pertinent points. However, the care-oriented culture often attracts the participation of dedicated professionals who may unguardedly deposit their trust in cooperatively working alongside secondary practitioners without fully ascertaining whether similar reliance can be placed on them to uphold the principles of discretion. This phenomenon not only persists across nursing domains but can equally be found across broader interdisciplinary sectors.

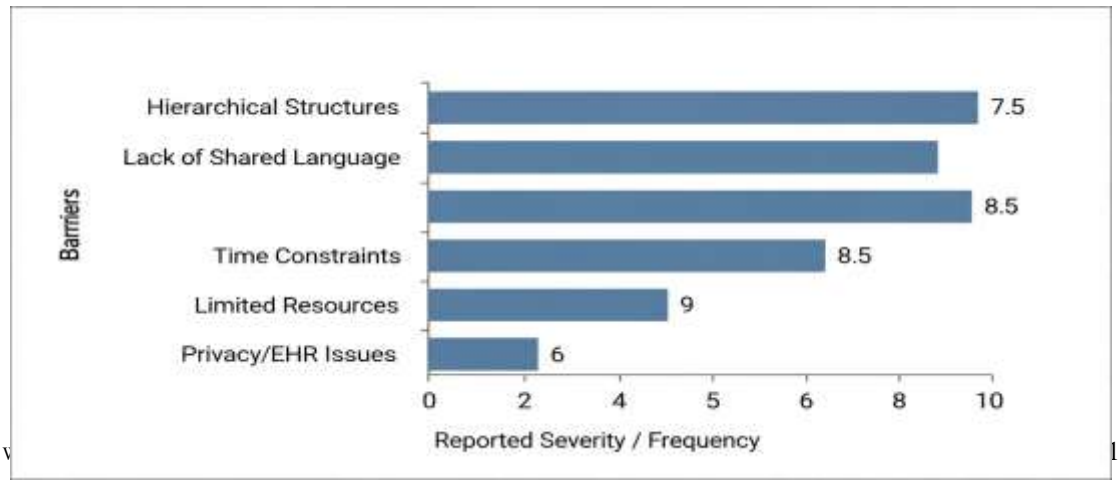

Chart 3: Major Barriers to Effective Interprofessional Collaboration

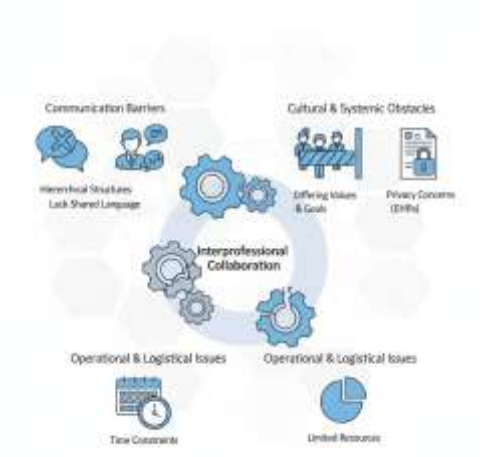

Figure 3: Common Challenges in Interprofessional Collaboration (IPC)

Communication Barriers and Hierarchy

Communication among health care professionals—doctors, nurses, and allied health professions—is vital to safe, quality, and patient-centered care because the health care team operates as a unit. Effective communication facilitates knowledge sharing, offers new perspectives, reduces duplication of efforts, and enhances coordination (Richards-Douglas, 2016). Accordingly, the communication methods of physician-nurse interactions are important topics in interprofessional education (Jantzen & J. Ford, 2012). In long-term-care facilities, written communication such as the residents' chart and care plan predominate, while verbal communication during shift change, chart rounds, and on-the-spot inquiries are also significant. More than 95% of experts identified good oral communication and constructive feedback as determining factors in interprofessional collaboration between doctors (MDs) and nurses (RNs). Other significant factors include supportive management, attitude—openness to others' ideas and respect for the nursing role—and familiarity with individuals, which have a greater effect on oral communication than on written format. During the construction of the collaborative practice-learning model for interdisciplinary education, differences between nursing and medical languages (medical terminology, physiology, etc.) emerge as potential barriers.

Communication among MDs and RNs in long-term-care facilities (LTCFs), particularly with respect to physician orders, is also noteworthy. The first study devoted exclusively to the topic applies the concept of interprofessional collaboration to LTCFs. A literature review reveals limited research on communication among MDs and RNs in LTCFs. Effective teams are characterized by trust, respect, and collaboration. An interdisciplinary approach should be applied when considering a teamwork model in health care. Doctors and nurses interact and share knowledge and skills that influence the care they give to residents. Hierarchy differences exist with doctors at the highest level, which may diminish collaborative interaction needed to deliver safe care. Some nurses may feel uncomfortable speaking up about problems or concerns. Intimidating behavior by individuals at the top of a hierarchy can hinder communication. Patient safety may be at risk when health care professionals are not communicating efficiently due to insufficient critical information, misinterpretation of information, or unclear orders over the telephone, potentially leading to medical errors. Stein published the first paper researching collaboration between MDs and nurses, describing a power struggle and indirect communication. The relationship between doctors and nurses is special and mutual respect exists, but attitudes can hinder meaningful communication. Doctors rely on nurses' suggestions to complete decision-making, and nurses must be bold, initiate,

and be competent, while avoiding appearing to influence decisions to protect the doctor-nurse relationship. Even though doctors valued nurses' comments, this was not always communicated to the nurse }

8.2. Confidentiality and Consent

Interprofessional collaboration (IPC) permits health professionals from different disciplines to work cooperatively toward the common goal of improving patient care. Such cooperation is especially beneficial in chronic disease management. To enhance the quality of care provided to patients with chronic illnesses and support the IPC process, a shared approach to confidentiality and consent must exist across the nursing and medical teams. Confidentiality enables effective cooperation among experts in diverse fields. Confidentiality in health care refers to the obligation of providers to protect the privacy of their patients and patients' data. Given the sensitive nature of medical information, individuals with chronic health issues are particularly concerned that their records will remain confidential and accessible only to those directly involved in their care (Gucciardi et al., 2016). The Interprofessional Education Collaborative (IPEC) asserts that confidence in information privacy is necessary to encourage data-sharing (Reese et al., 2021). Where collaborative practice exists, stakeholders cannot guarantee information security for clinical records shared with all providers. Therefore, patient consent is critical in ensuring the safety of such information and protecting the quality of shared data necessary for effective collaboration. Accordingly, IPC provides opportunities to discuss and obtain consent for transferring patient information to interdisciplinary files.

All stakeholders hold shared responsibility for obtaining consent, thus strengthening collaboration between units. While individual practitioners generally acquire consent separately, in an interprofessional approach, team members regard the consent process as collective and jointly determine when and how to secure such permissions. This cyclic interprofessional consent-review enables real-time evaluations of patient data, which is vital for chronic-disease management.

IPC enhances care coordination by clearly mapping the interprofessional patient journey and ensuring the transfer of critical patient information across disciplines. Shared consent files detailing the explicit data each provider is permitted to share facilitate patient-information transfer during interprofessional collaboration. Such summaries of patient consent and a description of the data-sharing process can also simplify the handover between units, as each beneficiary remains aware of the specific information each party exchanges. Consequently, defining a framework through which consensus around collaboration can be evaluated is essential to consolidating the interprofessional approach to managing chronic diseases.

8.3. Workload, Burnout, and Sustainability

Health care worker burnout is a significant problem that has reached crisis levels. Nurses in particular are valuable members of the health care team who already experience a disproportionate workload, and when the complexity of patient needs continues to rise, burnout levels can increase further. Despite the substantial investment that has been made at various levels to address burnout, it is still a substantial concern among nurses and health care workers. An academic- practice partnership explored the feasibility of the Synergy Tool as a possible intervention to relieve health professional burnout (Havaei et al., 2022).

Health care workers face chronic workplace pr;essures that can lead to an overwhelming sense of burnout. Work overload and feeling a lack of control in their work have emerged as key factors contributing to burnout. Many initiatives aimed at burnout relief are directed further downstream, after the problem has already escalated. A stronger emphasis on proactive intervention, particularly at the point of workload cycle design, is needed to find ways to alleviate workload pressure and build in more worker decision-making autonomy.

Educational team huddles conducted at the beginning of each shift provide further wonderful occasions to deliver concrete resilient strategies and highlight the importance of their adoption across the unit. During these huddles, nursing staff also learn about and experience resilience modalities that can be applied at work, supporting individuals' ability to foster their own resilience capacity as it pertains to the unique challenges of work life. Tracking this unavoidably challenging aim, a decrease in perceived burnout level is targeted across the unit.

9. Measuring Quality of Care and Outcomes

Measuring the effectiveness and quality of interprofessional collaboration (IPC) remains a challenge within the health care delivery system. It is especially imperative to define the problem and establish appropriate measures around IPC related to the management of chronic diseases, where IPC can have a significant impact (L. Beck et al., 2013). Inquiries on its clinical effectiveness, impact on patient-reported outcomes, and cost-effectiveness are warranted.

9.1. Clinical Effectiveness and Patient-Reported Outcomes

Patient health outcomes are often directly correlated with their access to interprofessional collaboration by health professionals and organisations. Open access to nurses, physicians, and allied health professionals in the direct management of chronic diseases is critical to enhancing patient health outcomes. An online, national survey of adult patients with a diagnosis of chronic obstructive pulmonary disease (COPD) was conducted prior to and following extensive interprofessional education with the goal to receive feedback from patients who actively participated in COPD management. (Moreo et al., 2016) Approximately 80% of participants indicated sharing a treatment plan with their provider. Insights from patients indicated that barriers still existed that limited their ability to have a realistic treatment plan and that interprofessional COPD-care teams could further improve management of COPD health outcomes are present. This same transition in management of COPD was assessed at primary care practices across Canada. Following a continuing education activity, a residual male-female gap in COPD care was identified and quantified. Using established methodologies of time optimality and maximum economic value, a series of new interprofessional-care, harmonisation and co-production of patient education modules were proposed. Chronic obstructive pulmonary disease is an unrelieved major burden globally. It is the second leading cause of admissions to COPD hospitals with an increasing care burden across both gender. Interprofessional COPD care quality is presently acceptable, but does not optimise quality-of-care or outcomes management. Consequently, a joint quality-improvement programme undertaken simultaneously with continued medical education maximally enhances health-outcome quality.

9.2. Process Measures and Efficiency

Care pathways with defined interprofessional handoff points, along with multidisciplinary rounds featuring a structured agenda, can enhance teamwork among nurses and physicians in hospitals (Howdyshell, 2018). Barriers to interprofessional collaboration in long-term care include differences in professional status and unmet interprofessional needs (Reese et al., 2021). In nursing homes, strategies to improve team communication and commitment include designating a primary contact point, providing structured medication protocols, wearing identifying name badges, and enhancing availability through telephone and fax access (A. Müller et al., 2018).

10. Conclusion

Interprofessional collaboration (IPC) in healthcare refers to different professionals cooperating to achieve common goals for individual patients. With chronic diseases exacting a heavy toll on health systems and populations, it is crucial to enhance the quality of care through improved organization. This document synthesizes how IPC between medical and nursing teams transforms care for chronic patients. To convey the essential principles, it separates the description of IPC theory,

practice, and impact. The overarching aim is to stimulate thinking and action towards collaborative practice and policy for chronic conditions.

Chronic noncommunicable diseases cause considerable morbidity and mortality while placing a significant burden on populations and healthcare systems. Therefore, many stakeholders have called for reorganizing chronic disease management around the needs of patients and communities (Reese et al., 2021). Because the overwhelming majority of healthcare encounters occur outside the hospital between doctors and nurses, interprofessional collaboration between these two groups can have a profoundly positive effect on patients with chronic diseases. Therefore, the focus of interprofessional collaboration and education is squarely on the medical and nursing teams.

Category	Strategy / Tool	Description
Educational Strategies	Interprofessional Simulation & Case-Based Learning	Allows students from different disciplines to rehearse team interactions and manage realistic chronic disease scenarios together.
	Reflective Practice	Enables students and professionals to capture key takeaways on collaborative approaches and improve future teamwork.
Workflows & Technology	Care Pathways & Multidisciplinary Rounds	Standardize interactions, define evidence-based clinical processes, and synchronize a unified approach to patient care.
	Shared Electronic Health Records (EHRs)	Enable joint access to patient histories, facilitate information sharing, and help align management strategies.
	Telehealth & Remote Monitoring	Allows for remote oversight of patient status, reduces hospital admissions, and facilitates communication and education.
Organizational Enablers	Leadership Support & Policy Frameworks	Institutional endorsement elevates IPC as a priority, guides resource allocation, and creates an environment conducive to teamwork.
	Quality Improvement (QI) Initiatives	Use QI frameworks to implement a multidisciplinary approach, adhere to clinical guidelines, and enhance patient safety.

Table 3: Strategies and Tools for Fostering IPC

Chronic patients share a variety of challenges that impede self-management, adherence, and access to timely information and health services. Coordination and continuity of care are especially important to their health and wellbeing, yet this remains a significant challenge as they are often treated by multiple professionals in a wide range of locations. Every effort must be made to improve communication, teamwork and organization among all disciplines and caregivers involved in their care. Concurrently, it is necessary to develop means of actively encouraging these patients to self-

manage their conditions as much as possible, which requires supporting their competence, motivation, and confidence.

References:

1. Reese, C., Sehlbrede, M., A. Brühmann, B., & Farin-Glattacker, E. (2021). How do nurses and physicians assess inter-professional collaboration in long-term care homes? A survey study. ncbi.nlm.nih.gov
2. Gucciardi, E., Espin, S., Morganti, A., & Dorado, L. (2016). Exploring interprofessional collaboration during the integration of diabetes teams into primary care. ncbi.nlm.nih.gov
3. Ignatavicius, D. D., Workman, M. L., & Rebar, C. (2017). Medical-Surgical Nursing-E-Book: Concepts for Interprofessional Collaborative Care. Elsevier Health Sciences. https://2u.pw/lwknGZ
4. Joy Lawn, S., Phyllis Sweet, L., Skinner, T., Wayne Battersby, M., & Delany, T. (2012). Information sharing for the management of chronic conditions in primary health care: How does it work and what are the outcomes?. [PDF]
5. Maimela, E., Van Geertruyden, J. P., Alberts, M., EP Modjadji, S., Meulemans, H., Fraeyman, J., & Bastiaens, H. (2015). The perceptions and perspectives of patients and health care providers on chronic diseases management in rural South Africa: a qualitative study. ncbi.nlm.nih.gov
6. Buttaro, T. M., Polgar-Bailey, P., Sandberg-Cook, J., & Trybulski, J. (2012). Primary care-E-Book: A collaborative practice. Elsevier Health Sciences. https://2u.pw/9EQJRm
7. H Morgan, K., Sofia Barroso, C., Bateman, S., Dixson, M., & Conroy Brown, K. (2020). Patients' Experiences of Interprofessional Collaborative Practice in Primary Care: A Scoping Review of the Literature. ncbi.nlm.nih.gov
8. Arnold, E. C., & Boggs, K. U. (2019). Interpersonal relationships e-book: professional communication skills for nurses. Elsevier Health Sciences. https://2u.pw/1iSFLP
9. Prentice, D., Moore, J., Fernandes, B., & Larabie, E. (2022). Nursing Care Delivery Models and Intraprofessional Collaborative Care: Canadian Nurse Leaders' Perspectives. ncbi.nlm.nih.gov
10. Good, V. S., & Kirkwood, P. L. (2017). Advanced Critical Care Nursing-E-Book: Advanced Critical Care Nursing-E-Book. Elsevier Health Sciences. https://2u.pw/YqCB7h
11. Sørensen, M., Synne Groven, K., Gjelsvik, B., Almendingen, K., & Garnweidner-Holme, L. (2020). The roles of healthcare professionals in diabetes care: a qualitative study in Norwegian general practice. ncbi.nlm.nih.gov
12. Jantzen, M. & J. Ford, D. (2012). Examining Nurse Leader/Manager-Physician Communication Strategies: A Pilot Study. [PDF]
13. Nagelkerk, J., Thompson, M., Bouthillier, M., Tompkins, A., Baer, L., Trytko, J., Booth, A., Stevens, A., & Groeneveld, K. (2017). Improving Outcomes in Adults with Diabetes Through an Interprofessional Collaborative Practice Program. [PDF]
14. Shepler, S. (2019). Interprofessional Collaboration During Discharge Planning for a Large Midwestern Hospital. [PDF]
15. Tomaschek, R., Lampart, P., Scheel-Sailer, A., Gemperli, A., Merlo, C., & Essig, S. (2022). Improvement Strategies for the Challenging Collaboration of General Practitioners and Specialists for Patients with Complex Chronic Conditions: A Scoping Review. ncbi.nlm.nih.gov
16. Yoost, B. L., & Crawford, L. R. (2019). Fundamentals of Nursing E-Book: Fundamentals of Nursing E-Book. Elsevier Health Sciences. https://2u.pw/8j6fZw
17. Jackson, J., MacKean, G., Cooke, T., & Lahtinen, M. (2017). Patient and provider experiences with relationship, information, and management continuity. [PDF]

18. Anne Xippolitos, L., Ann Marino, M., & H. Edelman, N. (2011). Leveraging Academic-Service Partnerships: Implications for Implementing the RWJ/IOM's Recommendations to Improve Quality, Access, and Value in Academic Medical Centers. ncbi.nlm.nih.gov
19. Haddad, A. M., Doherty, R. F., & Purtilo, R. B. (Eds.). (2023). Health Professional and Patient Interaction-E-Book: Health Professional and Patient Interaction-E-Book. Elsevier Health Sciences. https://2u.pw/05Wh6I
20. Irajpour, A., Farzi, S., Saghaei, M., & Ravaghi, H. (2019). Effect of interprofessional education of medication safety program on the medication error of physicians and nurses in the intensive care units. ncbi.nlm.nih.gov
21. Jean Jacques van Dongen, J., Amantia van Bokhoven, M., Daniëls, R., van der Weijden, T., Wilhelmina Gerarda Petronella Emonts, W., & Beurskens, A. (2016). Developing interprofessional care plans in chronic care: a scoping review. ncbi.nlm.nih.gov
22. Beavers-Kirby, J. R., & Segal-Gidan, F. I. (Eds.). (2023). Gerontology and Geriatrics for NPs and PAs-E-Book: An Interprofessional Approach. Elsevier Health Sciences. https://2u.pw/d0PvOM
23. Alain Ngangue, P., Forgues, C., Nguyen, T., Sasseville, M., Gallagher, F., Loignon, C., Stewart, M., Belle Brown, J., Chouinard, M. C., & Fortin, M. (2020). Patients, caregivers and health-care professionals' experience with an interdisciplinary intervention for people with multimorbidity in primary care: A qualitative study. ncbi.nlm.nih.gov
24. J Gardner, A., L Gray, A., Self, S., & S Wagener, J. (2017). Strengthening care teams to improve adherence in cystic fibrosis: a qualitative practice assessment and quality improvement initiative. ncbi.nlm.nih.gov
25. Morphet, J., Hood, K., Cant, R., Baulch, J., Gilbee, A., & Sandry, K. (2014). Teaching teamwork: an evaluation of an interprofessional training ward placement for health care students. ncbi.nlm.nih.gov
26. Alshammary, L. J. H., Alshammary, M. J. H., Alshammary, H. M. D., Alenazi, T. S., Alazmi, A. F., Alshammari, A. R. J., ... & Alrshidi, A. M. (2024). Nursing Strategies for Managing Chronic Diseases. Journal of International Crisis and Risk Communication Research, 7(S9), 3118. https://2u.pw/Scx9MW
27. Lunde, L., Moen, A., B. Jakobsen, R., O. Rosvold, E., & M. Brænd, A. (2021). Exploring healthcare students' interprofessional teamwork in primary care simulation scenarios: collaboration to create a shared treatment plan. ncbi.nlm.nih.gov
28. Singleton, J. K., DiGregorio, R. V., Green-Hernandez, C., Faber, E. S., Ferrara, L. R., & Slyer, J. T. (Eds.). (2014). Primary care: An interprofessional perspective. Springer Publishing Company. https://2u.pw/1Lmce9 Blue, D., C. Fike, G., Escalante, G., Kim, Y., & A. Munoz, J. (2018). Simulation as a Multidisciplinary Team Approach in Healthcare Programs in an Urban University Setting. [PDF]
29. S Mickelson, R., M Unertl, K., & J Holden, R. (2016). Medication Management: The Macrocognitive Workflow of Older Adults With Heart Failure. ncbi.nlm.nih.gov
30. Lynn Atienza San Jose, R. (2017). Educating Nurses on Workflow Changes from Electronic Health Record Adoption. [PDF]
31. Alcantara, A. (2018). MDR Matters! Improving Primary Nurse Participation in Multidisciplinary Rounds. [PDF]
32. Atkinson, C. (2018). An analysis of interprofessional rounds effect on readmission rates and patient satisfaction. [PDF]
33. Walton, V., Hogden, A., C Long, J., K Johnson, J., & Greenfield, D. (2019). How Do Interprofessional Healthcare Teams Perceive the Benefits and Challenges of Interdisciplinary Ward Rounds. ncbi.nlm.nih.gov
34. Barber, C. (2024). Primary Care of Children with Chronic Conditions-E-Book: Primary Care of Children with Chronic Conditions-E-Book. Elsevier Health Sciences. https://2u.pw/U3p7rF

35. F. J. Vos, J., Boonstra, A., Kooistra, A., Seelen, M., & van Offenbeek, M. (2020). The influence of electronic health record use on collaboration among medical specialties. ncbi.nlm.nih.gov
36. Palmer, J. (2016). Homecare Nursesu27 Experiences with Home Telemonitoring Systems. [PDF] Lemay, C., M. Beagan, B., J. Ferguson, W., & Lee, J. (2010). Lessons Learned From a Collaborative to Improve Care for Patients With Diabetes in 17 Community Health Centers, Massachusetts, 2006. ncbi.nlm.nih.gov
37. L. Beck, S., E. Weiss, M., Ryan-Wenger, N., E. Donaldson, N., Aydin, C., L. Towsley, G., & Gardner, W. (2013). Measuring Nurses' Impact on Health Care Quality: Progress, Challenges, and Future Directions. [PDF]
38. Monteiro Grilo, A. & Custódio dos Santos, M. (2017). Engaging patient: let's talk about how health providers can do it right. [PDF]
39. Graffigna, G., Barello, S., Riva, G., Corbo, M., Damiani, G., Iannone, P., Claudio Bosio, A., & Ricciardi, W. (2020). Italian Consensus Statement on Patient Engagement in Chronic Care: Process and Outcomes. ncbi.nlm.nih.gov
40. Potter, P. A., Perry, A. G., Stockert, P. A., & Hall, A. (2022). Clinical Companion for Fundamentals of Nursing-E-Book: Clinical Companion for Fundamentals of Nursing-E-Book. Elsevier health sciences. https://2u.pw/9HF1Xe
41. Chung, F. F., Wang, P. Y., Lin, S. C., Lee, Y. H., Wu, H. Y., & Lin, M. H. (2021). Shared clinical decision-making experiences in nursing: a qualitative study. ncbi.nlm.nih.gov
42. E Johnson, J. (2012). Partnering Associate Degree Nursing Students and Community Health Worker Students in a Collaborative, Culturally Focused, Interprofessional Learning Experience. [PDF]
43. Younas, A., Inayat, S., Dal Molin, A., & Durante, A. (2023). Nurses' Challenges to Developing Interpersonal Relationships During Integrated Care for Complex Patients. ncbi.nlm.nih.gov
44. Ignatavicius, D. D., Winkelman, C., Workman, M. L., Rebar, C. R., & Heimgartner, N. M. (2017). Clinical Companion for Medical-Surgical Nursing-E-Book: Clinical Companion for Medical-Surgical Nursing-E-Book. Elsevier Health Sciences. https://2u.pw/6kZTip
45. Richards-Douglas, M. (2016). Identifying learning needs to enhance communication skills between doctors (MDs) and nurses (RNs) in long-term care facilities (LTCFs) to deliver safe care to residents. [PDF]
46. Havaei, F., MacPhee, M., Ma, A., W. Wong, V., Li, C., Cheung, I., Scigliano, L., & Taylor, A. (2022). Implementation of the Synergy Tool: A Potential Intervention to Relieve Health Care Worker Burnout. ncbi.nlm.nih.gov
47. Moreo, K., Greene, L., & Sapir, T. (2016). Improving Interprofessional and Coproductive Outcomes of Care for Patients with Chronic Obstructive Pulmonary Disease. ncbi.nlm.nih.gov
48. Yoder-Wise, P. S., & Sportsman, S. (2022). Leading and Managing in Nursing E-Book: Leading and Managing in Nursing E-Book. Elsevier Health Sciences. https://2u.pw/BX1MZJ
49. Howdyshell, R. (2018). Can the implementation of interprofessional rounds improve hospital throughput efficiency?. [PDF]
50. Tyerman, J., Cobbett, S., Harding, M. M., Kwong, J., Roberts, D., Hagler, D., & Reinisch, C. (2022). Lewis's Medical-Surgical Nursing in Canada-E-Book: Lewis's Medical-Surgical Nursing in Canada-E-Book. Elsevier Health Sciences. https://2u.pw/YiYrut Müller, C., Fleischmann, N., Cavazzini, C., Heim, S., Seide, S., Geister, C., Tetzlaff, B., Hoell, A., Werle, J., Weyerer, S., Scherer, M., & Hummers, E. (2018). Interprofessional collaboration in nursing homes (interprof): development and piloting of measures to improve interprofessional collaboration and communication: a qualitative multicentre study. [PDF]
51. Sole, M. L., Klein, D. G., & Moseley, M. J. (2020). Introduction to Critical Care Nursing E-Book: Introduction to Critical Care Nursing E-Book. Elsevier Health Sciences. https://2u.pw/0IuE4D
52. Kay Wheeler, B. (2016). Investigating the Efficacy of Pre-Licensure Clinical Interprofessional Education. [PDF]