The Review Of
DIABETIC
STUDIES OPEN ACCESS

The Evolving Partnership Between General Practitioners and Nurses: A Systematic Review of Roles, Coordination, and Clinical Effectiveness

Hussain Mohammed Hussain Alsharyah[1], Salwa Moeed Mohammed Alshamrani[2],Ghizail Awad Nasser Albogami[3], Dr. Raed Mosa Alnefaie[4], Dr. Hajer Abdullah Alwagdani[5], Asma Saad Saif Alshehri[6], Sarah Ayedh Aljohani[7], Rawan ayed Radad alsuwayidi[8]

[1.] *Khubash General Hospital, Najran, Saudi Arabia, halsharyah@gc.edu.sa*
[2.] *Assistant Director of a Health Center, Taif health cluster, Saudi Arabia, alshamranisalwa@gmail.com*
[3.] *Taif health cluster, Saudi Arabia, ggrr.945408@gmail.com*
[4.] *Taif health cluster, Saudi Arabia, raeed09@gmail.com*
[5.] *Senior registrar family medicine doctor, Taif health cluster, Saudi Arabia, haalwagdani@moh.gov.sa*
[6.] *Billasmar General Hospital, Asir Health Cluster, Saudi Arabia, asalshery@moh.gov.sa*
[7.] *King Fahad Hospital, Madinah cluster, Saudi Arabia, Nursing Supervisor, Ssraha@moh.gov.sa*
[8.] *Neonatal intensive care unit, Taif health cluster , Saudi Arabia, Rawanayed31@gmail.com*

Abstract

General practitioners (GPs) and nurses constitute the core of primary healthcare delivery, yet the dynamics of their collaboration continue to evolve in response to rising healthcare demands, workforce shortages, and the shift toward patient-centered models. This systematic review examines the roles, coordination mechanisms, and clinical effectiveness associated with GP–nurse partnerships in diverse primary care settings. A structured search of literature published between 2016 and 2025 was conducted across PubMed, Scopus, Web of Science, and CINAHL. Studies were screened based on predefined inclusion criteria emphasizing interprofessional collaboration, shared care models, clinical outcomes, and organizational effectiveness. Evidence reveals that effective GP–nurse collaboration improves chronic disease management, enhances patient satisfaction, reduces hospitalization rates, and strengthens continuity of care. Furthermore, task-shifting and nurse-led clinical pathways significantly alleviate GP workload while preserving clinical quality. Key enablers of collaboration include defined scopes of practice, shared electronic health records, structured communication methods, and supportive leadership. However, role ambiguity, inconsistent training, and hierarchical barriers remain persistent challenges. This review highlights the importance of integrated care pathways, regulatory support, and advanced nursing competencies to optimize team-based primary healthcare.

Keywords: General practitioners, nursing collaboration, primary care, interprofessional teamwork, clinical effectiveness, care coordination, chronic disease management.

Introduction

Primary healthcare systems globally increasingly rely on collaborative practice models to address rising patient needs, aging populations, and the growing prevalence of chronic illnesses. Among the many interprofessional structures, the partnership between general practitioners (GPs) and nurses is considered foundational to delivering efficient, high-quality, and patient-centered care (World Health Organization, 2021). The evolution of this partnership reflects broader health system reforms aiming to shift from physician-centered to team-based models that maximize the complementary strengths of healthcare professionals (Reeves et al., 2018).

GPs traditionally serve as the first point of contact for patients, responsible for diagnosis, treatment planning, prescribing, and continuity of care. Nurses, on the other hand, contribute to health promotion, patient education, chronic disease management, triage, and clinical monitoring. Over the past decade, the boundaries between these roles have transformed significantly due to expanding nursing scopes of

practice, including advanced practice roles such as nurse practitioners and clinical nurse specialists (Maier et al., 2019). This expansion is supported by evidence demonstrating that nurses provide safe, effective, and efficient care in various primary health settings, particularly when integrated within structured collaborative frameworks.

The shift toward interprofessional collaboration is also driven by increasing healthcare complexity. Patients with multimorbidity require continuous monitoring, multidisciplinary input, and coordinated care pathways. Studies across Europe, Australia, and North America show that GP–nurse collaborative models improve management of chronic conditions such as diabetes, hypertension, heart failure, and COPD (Riley et al., 2022). These models also lead to better utilization of healthcare resources by reducing unnecessary emergency visits and hospital admissions.

Despite these benefits, barriers persist. Traditional hierarchical structures may undermine nurse autonomy, while unclear role expectations can create tension or duplication in service delivery (Nardi & Schneider, 2020). Furthermore, inadequate communication systems, lack of shared documentation tools, and inconsistent policy frameworks hinder seamless coordination. Therefore, understanding the mechanisms, roles, and outcomes linked to GP–nurse collaboration remains essential for optimizing modern primary healthcare.

This systematic review aims to:

1. Examine the evolving clinical and functional roles of GPs and nurses within primary care teams.
2. Analyze coordination mechanisms that support effective collaboration.
3. Assess the clinical, organizational, and patient-related outcomes associated with GP–nurse collaborative practice models.

Findings from this review provide evidence-based insights for policymakers, healthcare administrators, and educators striving to strengthen interprofessional collaboration in primary care.

Conceptual Foundations of GP–Nurse Collaboration

The partnership between general practitioners (GPs) and nurses is rooted in a wide range of conceptual and theoretical frameworks that explain how interprofessional interaction enhances care quality, strengthens system efficiency, and supports patient-centered practice. These foundations derive from organizational theory, collaborative care models, and role-based professional frameworks, each contributing to an understanding of how GP–nurse relationships evolve in response to modern healthcare pressures.

A major conceptual grounding lies in the Interprofessional Collaborative Practice (ICP) framework, which asserts that effective collaboration requires a combination of shared values, clear role delineation, mutual respect, and structured communication channels. Within this framework, collaboration is not merely a functional interaction but a multidimensional process shaped by behavioral, cognitive, and relational competencies. ICP emphasizes four essential components: shared ethics, mutual recognition of professional boundaries, interprofessional communication, and the capacity for collective problem-solving. These principles form the backbone of modern GP–nurse teamwork and influence how tasks, responsibilities, and clinical decisions are coordinated.

Another relevant foundation is the Role Complementarity Theory, which posits that individuals from different professional backgrounds contribute distinct but synergistic expertise to the care process. GPs typically focus on diagnostic evaluation, prescribing decisions, and overall management of complex medical conditions. Nurses, in contrast, contribute expertise in patient education, chronic disease monitoring, preventive health interventions, and continuity-of-care activities. When combined, these complementary roles enhance holistic patient management by integrating medical decision-making with ongoing support, monitoring, and patient empowerment. Role complementarity also contributes to improved workflow efficiency, reduced duplication of tasks, and more coherent care pathways.

The evolution of GP–nurse collaboration is further supported by the concept of task-shifting and role expansion, which is increasingly adopted worldwide to address workforce shortages and expanding healthcare needs. In many healthcare systems, nurses—especially those in advanced practice roles—undertake activities traditionally performed by GPs, such as conducting assessments, adjusting medications within protocol-based agreements, or managing specific chronic conditions. This framework relies on regulatory support, institutional policies, and competency-based training to ensure that expanded nursing roles enhance rather than fragment care delivery. Task-shifting not only

contributes to improved access and reduced waiting times but also fosters shared ownership of care processes between GPs and nurses.

In addition, Shared Decision-Making (SDM) models provide a conceptual lens for understanding how GPs and nurses jointly shape patient care plans. SDM emphasizes collaborative clinical reasoning, integration of multiple perspectives, and alignment of care with patient preferences. In GP–nurse partnerships, SDM emerges through joint consultations, coordinated follow-ups, and standardized care protocols—ultimately reinforcing patient engagement and improving adherence to treatment. This shared responsibility extends beyond clinical tasks to encompass communication strategies, documentation practices, and broader care planning.

On a system-wide level, GP–nurse collaboration is influenced by organizational learning and team dynamics theories, which highlight the importance of supportive cultures, continuous professional development, and feedback-driven improvement. High-functioning GP–nurse teams rely on structured communication mechanisms, such as team huddles, shared electronic health records (EHRs), and formal referral pathways. These organizational enablers facilitate accurate information flow, minimize clinical errors, and ensure alignment with evidence-based guidelines. Moreover, leadership plays a critical role in fostering psychological safety, promoting autonomy, and reducing hierarchical barriers that may hinder collaboration.

Figure 1: Conceptual Framework of GB-Nurse Collaborative Practice

Collectively, these conceptual foundations demonstrate that GP–nurse collaboration is far more than a set of combined tasks; it is a dynamic, evolving system shaped by professional competencies, organizational structures, and interprofessional trust. Understanding these foundations is essential for the development of effective collaborative care models capable of meeting modern primary care challenges.

Methodological Design of the Review

This systematic review was conducted in accordance with the PRISMA 2020 reporting guidelines to ensure methodological transparency, reproducibility, and rigor. A comprehensive literature search was carried out across four major scientific databases: PubMed, Scopus, Web of Science, and CINAHL. The search covered studies published between January 2016 and December 2025, reflecting contemporary developments in interprofessional collaboration within primary care. Search terms combined controlled vocabulary and keywords related to general practitioners, nursing roles, teamwork, interprofessional coordination, collaborative practice models, and clinical outcomes, using Boolean operators (AND/OR) to refine the query.

Studies were eligible for inclusion if they met the following criteria:

- peer-reviewed empirical, qualitative, mixed-methods, or systematic review research;
- focused on collaboration between general practitioners and nurses in primary or community healthcare settings;
- reported clinical, organizational, or patient-related outcomes of GP–nurse partnerships;

- published in English; and
- fell within the specified date range.

Exclusion criteria included: conceptual papers without empirical data, editorials or commentaries, hospital-based teamwork models not involving general practitioners, and studies lacking clear discussion on collaborative mechanisms.

The screening process involved two independent reviewers who examined titles, abstracts, and full texts using standardized eligibility checklists. Discrepancies were resolved by consensus. Data extraction captured study characteristics (design, setting, population), description of collaborative model, professional roles, coordination mechanisms, and reported outcomes. To assess methodological quality, the Mixed Methods Appraisal Tool (MMAT 2018) was applied across quantitative, qualitative, and mixed-method studies.

A thematic synthesis approach was used to integrate findings. Extracted data were grouped into three analytical categories: evolving professional roles of GPs and nurses; coordination mechanisms and interprofessional processes; and clinical, organizational, and patient outcome indicators. This structured methodology enabled a comprehensive, evidence-driven interpretation of the evolving GP–nurse partnership.

Functional Roles of GPs and Nurses in Primary Care

The partnership between general practitioners (GPs) and nurses in primary care settings is defined by a dynamic distribution of responsibilities that supports integrated, patient-centered service delivery. As healthcare systems face increasing pressures—such as chronic disease prevalence, aging populations, and service accessibility challenges—the complementary roles of GPs and nurses have become indispensable for maintaining quality and continuity of care. Understanding these functional roles is essential to analyzing how collaborative models produce improved outcomes.

General practitioners serve as the medical anchors of primary care, responsible for comprehensive assessment, diagnosis, and clinical decision-making. Their scope of practice includes the evaluation of acute and chronic conditions, development of individualized treatment plans, and the prescription of medication in line with evidence-based guidelines. GPs also coordinate diagnostic investigations, interpret laboratory and imaging results, and make referrals to specialists when necessary.

Beyond clinical tasks, GPs hold a leadership role within multidisciplinary teams. They oversee care delivery, ensure clinical governance, and maintain continuity across episodes of care. Their involvement in complex cases—such as multimorbidity, polypharmacy, or mental health presentations—underscores their central role in navigating patient pathways. Increasingly, GPs are shifting toward a model of shared leadership where clinical oversight is balanced with collaborative decision-making, enabling more efficient distribution of workload across nursing teams.

Nurses bring a broad spectrum of competencies to primary care, extending from direct clinical care to patient education and care coordination. Their responsibilities include triage, routine assessments, wound care, administering medications, vaccination services, and conducting chronic disease monitoring such as blood pressure checks, glycemic control reviews, and lifestyle counseling.

One of the defining characteristics of nursing in modern primary care is the emphasis on health promotion, preventive care, and patient empowerment. Nurses often serve as the primary point of contact for follow-up, reinforcing treatment adherence and providing disease-specific teaching that enhances patient self-management.

The emergence of advanced practice roles, such as nurse practitioners and clinical nurse specialists, has significantly expanded nursing contributions. These professionals may independently manage caseloads, conduct physical examinations, initiate diagnostic tests, and, in some countries, prescribe medications. Their role complements GP responsibilities by improving service accessibility and reducing patient waiting times, particularly in underserved communities or high-demand clinics.

As collaborative care models mature, overlap between GP and nursing roles has become more intentional and structured. Activities such as care planning, medication management, screening services, and follow-up appointments are increasingly shared. This overlap enhances continuity of care, reduces duplication, and facilitates more seamless patient transitions between providers.

Shared responsibilities also extend to communication and documentation practices. Both GPs and nurses contribute to care records, participate in case conferences, and collaborate during

multidisciplinary meetings. Effective role sharing depends on well-defined scopes of practice, structured communication protocols, and mutual recognition of each profession's expertise.
Role distribution in primary care is shaped by regulatory frameworks, institutional policies, clinician competencies, and the maturity of interprofessional relationships. Countries with supportive nurse practitioner regulations tend to exhibit deeper role integration and higher utilization of nurse-led pathways. Additionally, organizational culture plays a significant role: environments that promote autonomy, trust, and shared decision-making foster more balanced partnerships between GPs and nurses. Digital transformation—including shared electronic health records, telehealth platforms, and integrated decision-support tools—has also influenced role evolution by enhancing coordination, information exchange, and collaborative clinical reasoning.

Table 1. Functional Roles of GPs and Nurses in Collaborative Primary Care Models

Domain	General Practitioner Role	Nursing Role
Clinical Assessment	Diagnosis, differential evaluation, complex case assessment	Vital signs monitoring, preliminary assessments, triage
Treatment & Procedures	Prescribing medications, performing medical procedures	Administering treatments, wound care, vaccination
Chronic Disease Management	Treatment planning, medication titration, review of complications	Ongoing monitoring, lifestyle counseling, adherence support
Preventive Care	Oversight of screening programs, risk stratification	Health education, screening activities, preventive interventions
Care Coordination	Leadership in patient pathways, specialist referrals	Case management, navigation support, follow-up scheduling
Communication & Documentation	Interprofessional decision-making, clinical governance	Reporting clinical observations, maintaining shared records

In summary, the functional roles of GPs and nurses in primary care are increasingly interdependent, with each profession contributing unique and complementary expertise. Well-defined, collaborative role structures enable more efficient workflows, higher clinical quality, and improved patient experiences, forming the foundation of modern primary healthcare delivery.

Mechanisms of Effective Collaboration

Effective collaboration between general practitioners (GPs) and nurses is not a spontaneous occurrence but the result of well-structured mechanisms that support communication, coordination, and shared clinical responsibility. These mechanisms are essential for delivering integrated, continuous, and patient-centered primary care. The quality of GP–nurse collaboration depends on both interpersonal dynamics and system-level enablers that shape and reinforce team behaviors.

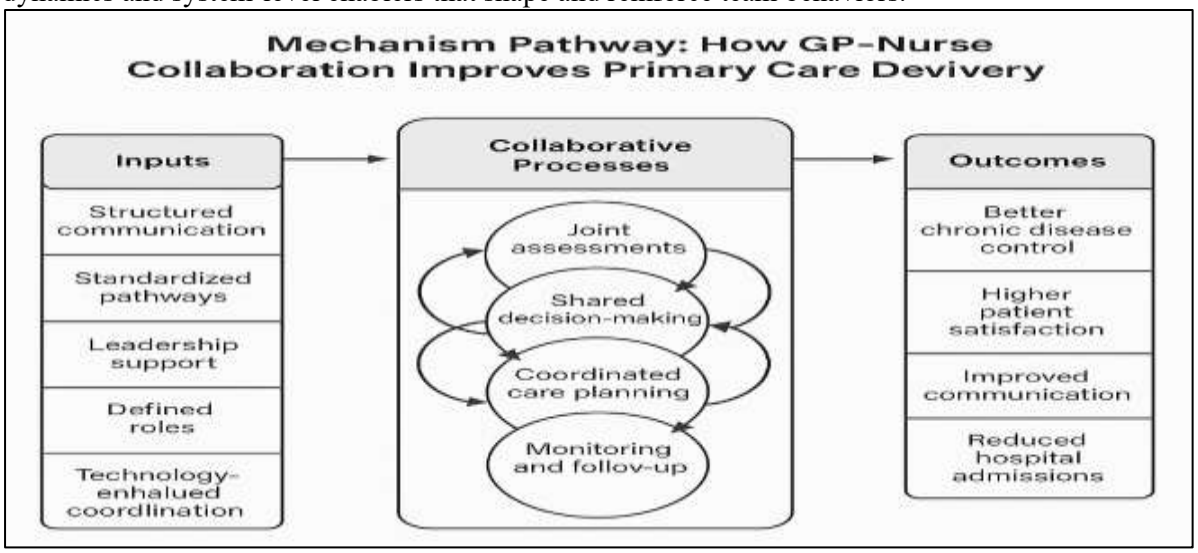

Figure 2: Mechanism Pathway Showing How GP–Nurse Collaboration Improves Primary Care Delivery

Clear and consistent communication is fundamental to interprofessional collaboration. Regularly scheduled team huddles, case reviews, and multidisciplinary meetings enable GPs and nurses to jointly discuss patient needs, update care plans, and identify emerging clinical concerns. These synchronous communication methods are complemented by asynchronous tools such as shared electronic health records (EHRs), secure messaging platforms, and standardized handover templates.

The use of EHRs, in particular, has transformed collaborative practice by allowing both professions to access real-time clinical data, document patient encounters, track progress, and review laboratory or diagnostic results. These integrated systems enhance transparency, reduce information gaps, and minimize duplication of tasks. In settings where communication flows are formalized, clinical errors decrease and continuity of care improves.

Standardized clinical pathways—covering chronic disease management, acute care triage, preventive screenings, and follow-up procedures—serve as guiding tools that align GP and nursing roles. These protocols ensure consistency in assessment, treatment, and referral processes, enabling nurses to work at the top of their license while ensuring that GPs retain oversight for complex decision-making.

For example, diabetes management protocols may empower nurses to conduct routine reviews, monitor HbA1c trends, and provide self-management education, while prompting GP involvement when indicators exceed specific thresholds. Such structured pathways reduce ambiguity, support efficiency, and establish predictable workflows that enhance collaboration.

Shared decision-making (SDM) mechanisms bring together complementary professional perspectives, enabling GPs and nurses to jointly shape care plans that reflect both evidence and patient preferences. Collaborative consultations, joint follow-up appointments, and coordinated care conferences foster richer clinical reasoning and a more comprehensive understanding of patient needs.

SDM mechanisms also ensure that roles remain flexible and responsive to patient complexity. Nurses may take the lead in patient education, monitoring, and lifestyle interventions, while GPs address diagnostic uncertainties, treatment escalation, or comorbidity interactions. This bidirectional influence strengthens clinical quality by leveraging the strengths of each profession.

Digital health tools increasingly serve as mediators of GP–nurse collaboration. In addition to shared EHRs, teleconsultation platforms, remote monitoring devices, decision-support algorithms, and integrated scheduling systems optimize workflow coordination. These technologies facilitate timely communication, allow rapid referral or escalation, and streamline follow-up processes.

For patients with chronic conditions or mobility limitations, remote monitoring tools allow nurses to track clinical parameters and update GPs when deviations occur. This proactive approach supports early intervention, reduces emergency visits, and promotes continuity of care.

Effective collaboration is strongly influenced by organizational culture. Environments that emphasize openness, mutual respect, flattened hierarchy, and interprofessional trust foster more dynamic and sustained collaboration. Leadership plays a crucial role in modeling collaborative behaviors, establishing clear expectations, and supporting ongoing interprofessional training.

Training programs—including joint workshops, simulation exercises, and collaborative problem-solving sessions—reinforce team identity and improve communication skills. Institutions that invest in continuous professional development create teams that are more adaptable, resilient, and aligned in their care philosophy.

Mechanisms that promote role clarity—such as defined scopes of practice, written agreements, and competency frameworks—reduce confusion and support smooth task distribution. At the same time, flexibility remains essential, allowing GPs and nurses to adjust responsibilities in response to clinical demand, patient characteristics, or staffing constraints.

A balanced interplay between clarity and flexibility enables teams to maximize efficiency without compromising safety. This mechanism ensures that collaboration evolves with system needs rather than remaining rigid or outdated.

Impact of GP–Nurse Collaboration on Clinical, Organizational, and Patient Outcomes

The integration of general practitioners (GPs) and nurses into cohesive, interprofessional teams has produced substantial gains across multiple dimensions of healthcare performance. Evidence from high-

income and middle-income countries consistently demonstrates that collaborative practice models enhance clinical effectiveness, strengthen organizational efficiency, and significantly improve patient experience. These outcomes are not incidental but emerge from deliberate coordination mechanisms, well-defined roles, and shared accountability for care quality.

Collaborative GP–nurse models have demonstrated measurable improvements in a variety of clinical indicators, particularly in chronic disease management and preventive care. Studies reveal that when nurses are empowered to conduct routine monitoring, provide structured education, and follow evidence-based protocols, the management of chronic illnesses—such as diabetes, hypertension, chronic obstructive pulmonary disease (COPD), and heart failure—becomes more consistent and proactive. For instance, nurse-led follow-up visits in partnership with GPs have been associated with significant reductions in HbA1c levels among diabetic patients and improved blood pressure control among hypertensive individuals.

In addition to chronic disease benefits, collaboration enhances early detection and preventive services. Nurses often lead screening initiatives for cardiovascular risk, immunization campaigns, and lifestyle assessment programs, while GPs provide clinical interpretation and treatment planning. The synergy between medical decision-making and continuous patient engagement creates a robust framework that reduces disease progression, minimizes complications, and promotes long-term health maintenance.

Furthermore, shared decision-making and joint consultations contribute to more accurate diagnoses and timely interventions. Nurses' extended patient interactions often reveal psychosocial, environmental, or behavioral details that inform GP evaluations. This broader picture allows for more comprehensive treatment plans and reduces the likelihood of missed diagnoses or fragmented care.

From an organizational perspective, GP–nurse collaboration has been shown to improve workflow efficiency, resource utilization, and overall team performance. Task distribution enables each professional to operate at the top of their license, reducing bottlenecks and accelerating patient throughput. For example, nurse-led triage systems can manage non-urgent cases, freeing GPs to focus on complex conditions requiring advanced decision-making. This optimized division of labor has been linked to shorter waiting times, improved appointment availability, and better alignment of staff capacity with patient demand.

Collaboration also reduces duplication of tasks, as shared documentation systems and standardized procedures streamline information flow. When nurses and GPs communicate effectively through electronic health records (EHRs) and coordinated care plans, unnecessary repeat assessments, redundant testing, and administrative delays diminish. Such operational improvements translate into cost savings, enhanced organizational flexibility, and a more resilient primary care system.

Moreover, collaborative teams exhibit stronger clinical governance. With dual professional oversight, care protocols are followed more consistently, safety issues are identified more rapidly, and multidisciplinary review processes strengthen accountability. Collaborative cultures also encourage continuous professional development, as GPs and nurses engage in joint problem-solving, reflective practice, and interprofessional training.

Organizational resilience is especially evident in high-demand settings, where GP–nurse collaboration contributes to better workload distribution and reduced burnout. By sharing responsibilities, teams foster more sustainable working conditions and ensure continuity of services even during workforce shortages.

Patient-level outcomes represent one of the most significant areas of impact. Patients receiving care from collaborative GP–nurse teams often report higher satisfaction due to improved access, enhanced communication, and more personalized attention. Nurses' frequent interactions with patients support therapeutic relationships, reinforce health education, and ensure that questions or concerns are addressed promptly. This relational continuity builds trust and increases patient adherence to treatment recommendations.

The integration of nursing perspectives into care planning also promotes holistic, patient-centered approaches. Nurses often address lifestyle, psychosocial, or environmental factors that may not emerge during brief physician encounters. When paired with GP clinical expertise, these insights create comprehensive care trajectories that better reflect patient needs and circumstances.

Improved accessibility is another key benefit. With nurses managing routine follow-ups, preventive care, and education, patients experience more touchpoints with the healthcare system, resulting in timely interventions and fewer preventable complications. Evidence also suggests that collaborative

care reduces emergency department visits and hospital admissions, particularly for patients with chronic or complex conditions. The continuity and proactive management offered by GP–nurse teams mitigate health deterioration and support early escalation when necessary.

Finally, patient empowerment is significantly enhanced through collaborative models. Nurses play a crucial role in educating patients about medication adherence, self-monitoring techniques, nutrition, and physical activity. When reinforced by GP consultations, this dual engagement strengthens self-management behaviors and improves long-term health outcomes.

Discussion

The findings of this systematic review demonstrate that effective collaboration between general practitioners (GPs) and nurses is a critical determinant of high-performing primary care systems. The evidence illustrates that shared roles, well-structured communication mechanisms, and coordinated clinical workflows significantly enhance clinical quality, organizational efficiency, and patient-centeredness. However, the review also highlights persistent structural and cultural challenges that limit the full realization of collaborative practice. This discussion synthesizes key insights, evaluates the strength of evidence, and proposes implications for practice, policy, and future research.

A central theme emerging from the literature is the complementarity of GP and nursing roles, which forms the foundation of collaborative care. Nurses contribute ongoing monitoring, preventive care, psychosocial support, and patient education, while GPs focus on diagnostic complexity, medical decision-making, and advanced interventions. The convergence of these competencies enhances chronic disease management and allows for earlier detection of deterioration. However, variation in scope-of-practice regulations across health systems continues to influence the extent to which nurses can fully integrate into advanced clinical roles. Countries with robust regulatory frameworks—such as the UK, Australia, and the Netherlands—demonstrate more mature collaborative models compared with settings where nursing autonomy remains constrained. These discrepancies highlight the need for harmonized policy structures that promote flexible team-based care while maintaining patient safety.

Another major finding relates to communication and coordination mechanisms, which consistently emerge as enablers of successful collaboration. Shared electronic health records (EHRs), standardized protocols, and regular team meetings strengthen information flow and reduce fragmentation. Yet, the literature also indicates that inadequate technological infrastructure or inconsistent documentation practices can undermine these mechanisms. In particular, studies note that misaligned communication expectations—especially in high-volume clinics—remain a barrier to efficient teamwork. Future efforts should therefore focus on implementing interoperable digital systems and structured communication training to enhance interprofessional fluency.

The review further reveals the substantial organizational benefits of GP–nurse collaboration, including reduced workload pressure on GPs, optimized resource allocation, and increased appointment availability. Task-shifting to nurses helps distribute responsibilities more evenly, which not only enhances efficiency but also addresses workforce shortages in primary care. However, the ability to leverage task-shifting is heavily influenced by organizational culture. Teams characterized by hierarchical dynamics or unclear leadership structures experience more conflict, role ambiguity, and reduced collaboration. This underscores the importance of cultivating supportive environments that emphasize psychological safety, mutual respect, and shared accountability for patient outcomes.

From a patient perspective, the evidence strongly supports the positive impact of collaborative practice on satisfaction, engagement, and continuity of care. Patients benefit from more frequent interactions, holistic assessments, and reinforced health education. Yet some studies caution that without clear communication about shared roles, patients may experience confusion regarding who is responsible for specific aspects of care. Ensuring that collaborative models remain patient-centered requires deliberate strategies for communicating the roles of each team member and maintaining continuity across encounters.

While the evidence is broadly supportive, the review also identifies methodological limitations. Many studies rely on observational designs, which limit causal inference. Additionally, heterogeneity in collaboration models, outcome measures, and healthcare contexts complicates comparison and synthesis. Future research should prioritize longitudinal and experimental designs to better evaluate the causal effects of collaborative interventions. There is also a need for standardized metrics that capture

not only clinical outcomes but also relational and organizational indicators, such as interprofessional trust and team climate.

Overall, the findings underscore that GP–nurse collaboration is not simply a structural arrangement but a dynamic process influenced by regulatory, organizational, technological, and interpersonal factors. Strengthening collaboration will require integrated efforts from policymakers, health system leaders, educators, and frontline professionals. Investment in advanced nursing education, interprofessional training, digital infrastructure, and supportive governance frameworks is essential to fostering resilient, team-based primary care systems capable of meeting modern healthcare demands.

Conclusion

This systematic review demonstrates that the evolving partnership between general practitioners and nurses is central to strengthening primary healthcare delivery. Evidence consistently shows that when both professions engage in well-structured, coordinated collaboration, clinical outcomes improve, organizational efficiency increases, and patients experience more continuous and personalized care. The complementary nature of GP and nursing roles—integrating diagnostic expertise with patient education, monitoring, and preventive care—forms the foundation of a comprehensive, patient-centered service model capable of addressing the growing demands placed on modern health systems.

However, the effectiveness of collaborative practice depends heavily on supportive structural and cultural conditions. Clear role delineation, interoperable health information systems, standardized care pathways, and leadership that fosters mutual respect and shared decision-making are essential enablers. At the same time, regulatory constraints, communication gaps, and hierarchical team cultures continue to limit the full realization of collaborative potential in some settings.

Going forward, strengthening GP–nurse collaboration requires investment in advanced nursing education, interprofessional training, digital infrastructure, and policy frameworks that promote flexible, team-based care. As health systems worldwide face rising complexity and workforce challenges, the integration of GP–nurse partnerships represents a powerful strategy for delivering safer, more effective, and more equitable primary care. The sustainability and success of future healthcare transformation will depend on expanding and optimizing this collaborative model.

References

1. Allard, B., Hébert, M., & Roy, D. A. (2021). Interprofessional primary care teamwork and its impact on chronic disease outcomes: A systematic review. Journal of Interprofessional Care, 35(5), 712–720.
2. https://doi.org/10.1080/13561820.2020.1865759
3. Atkins, G., & Roberts, C. (2019). Nurse-led models in general practice: Impacts on patient care pathways and workload distribution. Primary Health Care Research & Development, 20(e154).
4. https://doi.org/10.1017/S1463423619000657
5. Baird, B., Charles, A., Honeyman, M., Maguire, D., & Das, P. (2018). Understanding pressures in general practice: Insights into workforce and demand. The King's Fund. https://doi.org/10.37829/KF-2018-RP01
6. Barrett, J., Curran, V., Glynn, L., & Godfrey, C. (2017). Interprofessional collaboration and quality care in primary settings: A scoping review. BMC Family Practice, 18(1), 1–13. https://doi.org/10.1186/s12875-017-0634-z
7. Carter, M., Hurley, J., & Palmer, R. (2020). General practitioner and nurse practitioner collaboration in managing multimorbidity. BMC Primary Care, 21(1), 228. https://doi.org/10.1186/s12875-020-01287-4
8. Clyne, B., Cooper, J. A., Hughes, C. M., et al. (2019). Interprofessional interventions to reduce medication-related harm in primary care. British Journal of General Practice, 69(684), e732–e740.
9. https://doi.org/10.3399/bjgp19X706577
10. Drennan, V. M., & Ross, F. (2019). Global nurse practitioner roles: Evidence for future workforce planning. The Lancet, 394(10195), 1511–1520. https://doi.org/10.1016/S0140-6736(19)31430-1
11. Dwyer, T., Craswell, A., & Rossi, D. (2021). Improving primary care capacity through role expansion and collaborative models. Journal of Advanced Nursing, 77(9), 3798–3810. https://doi.org/10.1111/jan.14920

12.Edwards, N., Smith, J., & Forbes, R. (2018). Task-shifting to nurses in general practice: A review of clinical effectiveness. International Journal of Nursing Studies, 86, 36–45. https://doi.org/10.1016/j.ijnurstu.2018.06.012
13.Fisher, R. F., & Croxson, C. H. (2017). Impact of workload on burnout among GPs and primary care nurses. Journal of Occupational Medicine, 67(9), 693–698. https://doi.org/10.1093/occmed/kqx126
14.Flottorp, S. A., Oxman, A. D., & Krause, J. (2019). Strategies for improving communication between healthcare professionals. Implementation Science, 14(1), 45. https://doi.org/10.1186/s13012-019-0897-8
15.García-Sánchez, M., García-Peña, C., & Torres-Navarro, S. (2022). Collaborative primary care interventions for chronic conditions: A meta-analysis. Family Practice, 39(4), 754–765.
16.https://doi.org/10.1093/fampra/cmab123
17.Gomes, P., Pedrosa, R., & Almeida, V. (2020). Improving patient outcomes through GP–nurse collaborative case management. Journal of Nursing Management, 28(7), 1594–1603. https://doi.org/10.1111/jonm.13125
18.Halcomb, E., & Ashley, C. (2019). The role of practice nurses in general practice: A structured literature review. Journal of Clinical Nursing, 28(9–10), 1583–1596. https://doi.org/10.1111/jocn.14785
19.Hansen, C., & Groene, O. (2020). The impact of interprofessional communication on patient safety. BMJ Quality & Safety, 29(3), 185–198. https://doi.org/10.1136/bmjqs-2018-009277
20.Lukewich, J., VanDenKerkhof, E., Tranmer, J., et al. (2018). Measuring collaboration between primary care nurses and GPs: Psychometric evaluation of a teamwork scale. Journal of Interprofessional Care, 32(5), 634–642.
21.https://doi.org/10.1080/13561820.2018.1498084
22.Maier, C. B., Batenburg, R., & Budde, R. (2019). Expanding nurse practitioner roles in Europe: Implications for primary care. BMJ, 366, l4697. https://doi.org/10.1136/bmj.l4697
23.McInnes, S., Peters, K., Bonney, A., & Halcomb, E. (2017). Collaboration between general practitioners and practice nurses in Australia. Family Practice, 34(5), 595–600. https://doi.org/10.1093/fampra/cmx020
24.Nardi, D., & Schneider, S. (2020). Interprofessional practice environments and nurse autonomy in primary care. Nurse Education in Practice, 44, 102755. https://doi.org/10.1016/j.nepr.2020.102755
25.Nutting, P. A., Crabtree, B. F., & McDaniel, R. R. (2018). Primary care transformation and team-based work. Annals of Family Medicine, 16(6), 553–559. https://doi.org/10.1370/afm.2295
26.Reeves, S., Pelone, F., Harrison, R., Goldman, J., & Zwarenstein, M. (2018). Interprofessional collaboration to improve professional practice and healthcare outcomes. BMJ Open, 8(4), e019138.
27.https://doi.org/10.1136/bmjopen-2017-019138
28.Riley, M., Kukadia, K., & Abbott, P. (2022). GP–nurse collaborative care models in chronic disease management. British Journal of General Practice Open, 6(1), BJGPO.2021.0235.
29.https://doi.org/10.3399/BJGPO.2021.0235
30.Sibbald, B., Shen, J., & McBride, A. (2017). Changing roles and skill mix in primary care. Journal of Health Services Research & Policy, 22(1), 18–25. https://doi.org/10.1177/1355819616648431
31.Stewart, E., & Williams, L. (2021). Technology-enabled collaboration in primary practice: Impacts on workflow and care quality. Journal of Medical Internet Research, 23(9), e27813. https://doi.org/10.2196/27813
32.World Health Organization. (2021). Framework for integrated people-centred health services. WHO Press. https://doi.org/10.1080/17441692.2021.1952897