

Saudi Journal of Medicine and Public Health

https://saudijmph.com/index.php/pub https://doi.org/10.64483/202522242

Navigating the Labyrinth: A Systematic Review of Role Clarity and Scope of Practice Among Diverse Healthcare Providers

Saadah Hameed Mohammed Alfahmi $^{(1)}$, Abdulrahman Hamad Al Rutaiq $^{(2)}$, Nada Ahmad Alhejali $^{(3)}$, Maryam Salem Algarni $^{(3)}$, Waad Saad Aldossari $^{(4)}$, Abdullah Kallas Arishi $^{(5)}$, Shaewela Mosa G Alanazi $^{(6)}$, Abdulaziz Farrah Andejani $^{(7)}$, Alia Abdulaziz Alkhelb $^{(8)}$, Shikah Saad Aldosary $^{(7)}$, Salwa Salem Alanazi $^{(6)}$, Shatha Ahmed Alaryani $^{(7)}$, Asma Mosa G Alanazi $^{(6)}$, Amal Mohammed ibn Mandeel $^{(9)}$

- (1) Al-Hajj St.Primary Health Centre, Makkah, Ministry of Health, Saudi Arabia,
- (2) Eradah complex and Mental Health, Ministry of Health, Saudi Arabia,
- (3) King Saud Medical City, Riyadh, Ministry of Health, Saudi Arabia,
- (4) Badr Al-Awwal Primary Health Care Center, Ministry of Health, Saudi Arabia,
- (5) Eradh Complex, Riyadh, Ministry of Health, Saudi Arabia,
- (6) Second Health Cluster, Alnadwah Primary Health Care, Riyadh, Ministry of Health, Saudi Arabia,
- (7) King Saud Medical City, Ministry of Health, Saudi Arabia,
- (8) MOH Almurooj PHC, Ministry of Health, Saudi Arabia,
- (9) Dental Clinics Complex In South Riyadh, Ministry of Health, Saudi Arabia.

Abstract

Background: The contemporary health care system is characterized by increasing patient complexity, unprecedented workforce shortfalls, and a requisite shift toward interprofessional, team-based models of care. Well-defined roles and scopes of practice for all health professionals are key elements underpinning patient safety, team effectiveness, and professional well-being within this dynamic.

Aim: This systematic review aims to synthesize current literature from 2015 to 2025, exploring and comparing issues of role clarity and SoP among five key provider groups: midwives, GPs, nurses, dentists, and health assistants.

Methods: A systematic search across major electronic databases, such as PubMed/MEDLINE, CINAHL, and Scopus, was conducted for relevant literature published within the period 2015-2025. The review included only peer-reviewed original research, systematic reviews, and meta-analyses focusing on either role clarity or SoP in clinical practice settings for the specified provider groups.

Results: The findings show that role ambiguity is a universal yet distinctive challenge across professions. Key issues pertain to midwives on their autonomy with obstetricians, GPs on their role expansion and delegation, nurses on the blurring of boundaries with advanced practice, dentists on systemic integration, and health assistants on pervasive ambiguity. Cross-cutting themes to influence clarity are regulatory frameworks, interprofessional education, intra-professional differentiation, and organizational culture

Conclusion: Role clarity is a dynamic process that is necessary for effective teamwork. It requires updated regulations, focused interprofessional education and leadership, and a particular emphasis on the integration of health assistants. Such initiatives are core to ensuring team performance is optimized, care for patients is improved, and provider retention is enhanced.

 $\textbf{Keywords:} \ \text{role clarity, scope of practice, interprofessional teams, healthcare workforce, health assistants.}$

Introduction

Effective, safe, and efficient health care delivery is a complex undertaking that requires the integration of diverse workers. The paradigm has shifted from a set of parallel professions to integrated, interprofessional teams in which individual contributions by each member are needed for effective patient-level outcomes (World Health Organization, 2018). At the core of this model of collaboration are two interdependent concepts: role clarity and scope of practice. Role clarity is defined as an individual's

perceptions of their task, functions, and responsibilities during work in a group or organization (Biddle, 2013). SoP, defined by law and profession, refers to procedures, actions, and processes that a health professional is allowed to perform considering education, experience, and licensure (Scanlon et al., 2023).

Lack of clarity in these respects has cascading negative consequences, including duplication or omission of tasks, interprofessional conflict, reduced job satisfaction, burnout, and most

Saudi Journal of Medicine and Public Health (SJMPH) ISSN 2961-4368

critically, compromised patient safety (Al Sayah et al., 2014). On the other hand, well-defined roles and optimized scopes of practice are associated with improved team communication, enhanced efficiency, greater provider autonomy, and better patient outcomes (Xyrichis et al., 2018). The challenges around role clarity and SoP are not equidistributed across the spectrum of health professions. They are influenced by historical professional hierarchies, changing routes of education, dynamic regulatory frameworks, and the constant pressure to meet population health needs with resources that are always limited (Nancarrow et al., 2013).

This review discusses five distinct but often interlinking groups of healthcare providers: midwives, general practitioners, nurses, dentists, and health assistants. Each group operates within a unique professional domain, but together forms the backbone of primary and secondary care in many health systems. Midwives work in a model that often interfaces closely, and sometimes contentiously, with obstetrics. GPs are gatekeepers and generalists facing an everexpanding portfolio of responsibilities that require delegation and team-based care. Nurses are the largest component of the health workforce, navigating an expanding landscape of advanced practice roles while managing fundamental care delivery. Dentists operate in both physically and systemically separate spaces but are increasingly recognized as integral to holistic health. Finally, health assistants (including nursing assistants, dental assistants, and medical assistants) are a growing and vital workforce for whom role clarity is often precarious, with impacts on well-being and function for the entire team.

It therefore seeks to comprehensively synthesize the literature from the past decade (2015-2025) to explore and compare issues of role clarity and SoP among the five provider groups. This review will identify common cross-cutting themes, profession-specific challenges, consequences of role ambiguity, and strategies/interventions that have been effective in enhancing role clarity and optimizing scopes of practice. In so doing, the review will provide evidence-based guidance for healthcare leaders, educators, and policymakers.

Methodology

This paper represents a systematic narrative review of the literature. A comprehensive search was conducted across major electronic databases, including PubMed/MEDLINE, CINAHL, Scopus, PsycINFO, and Web of Science. The search strategy was designed to capture the breadth of the topic across the specified provider groups and timeframe. Key search terms and their combinations included the following: ("role clarity" OR "role ambiguity" OR "scope of practice" OR "professional boundaries" OR "interprofessional relations") AND ("midwi" OR "general practitioner" OR "family physician" OR "nurs" OR "dentist*" OR "dental hygienist" OR

"health assistant" OR "nursing assistant" OR "physician assistant" OR "allied health personnel").

The inclusion criteria were as follows: (1) primary, original, peer-reviewed research (qualitative, quantitative, or mixed-methods studies), systematic reviews, and meta-analyses; (2) English language, published between 2015 and 2025; (3) the primary focus of the paper should have been on one of the three knowledge gaps: role clarity, scope of practice, or professional boundaries within clinical practice settings: and (4) one or more of the five target groups of healthcare providers. Exclusion criteria consisted of editorials, commentaries without a systematic analysis, and papers that discussed students exclusively without practicing clinicians. These thematic findings were used to generate a coherent narrative that compared and contrasted the experiences of the different provider groups.

Role Clarity and Scope of Practice: A Profession-Specific Analysis

Midwives: Autonomy, Collaboration, and the Medical Model

Midwifery has a philosophy of womancentered care promoting normality and physiological birth. However, the introduction of midwives into contemporary maternity care systems in many parts of the world, often dominated by an obstetric-led medical model, brings inherent tensions related to role clarity and autonomy (Corrigan et al., 2020; Simmelink et al., 2015). For midwives, this aspect of role clarity is closely associated with practicing independently within full scope, especially in those settings where they must work with or refer to obstetricians (Figure 1).

A central challenge is the "professional jurisdiction" over childbirth. Studies consistently show that midwives experience ambiguity in their role when their clinical judgment regarding low-risk pregnancies is overridden by standardized obstetric protocols, a phenomenon described as "protocoldriven erosion" of their scope (Bingham et al., 2023). This is particularly acute in hospital-based settings compared to freestanding birth centers. Moreover, the recent emergence of new roles, such as the obstetrician-gynecologist hospitalist, may introduce new layers of ambiguity in consultation and referral pathways. On the other hand, in countries like Canada and the United Kingdom, with models of wellintegrated practices where midwives are recognized as primary caregivers for low-risk women, role clarity is better, resulting in higher job satisfaction and improved perinatal outcomes. What is needed from the perspective of midwives is the establishment of clear, mutually respectful collaborative agreements that outline decision-making authority and channels of communication to ensure preservation of the autonomous scope of practice while guaranteeing seamless access to specialist care if needed.

General Practitioners: The Expanding Generalist and the Delegation Dilemma

General practitioners work at the interface of an increasingly demanding health service, confronted by growing chronic disease, multimorbidity burdens, and administrative tasks. The role for the general practitioner has expanded from the generalist diagnostician to include care coordinator, mental health first responder, and public health advocate (Mather et al., 2022). While such an expansion is necessary, it leads to role strain and ambiguity on the limits of responsibilities.

A significant challenge to SoP for GPs is the issue of delegation. GPs are increasingly delegating tasks to other members of their teams, including practice nurses, physician associates, and health assistants, to help manage workload pressures. This is often ad hoc and without clarity, risking safety. Teper et al.'s (2020) research showed that GPs continue to report a lingering sense of ultimate responsibility for work they have delegated, which causes them anxiety and limits effective task shifting. Integrating new roles, such as Physician Associates (PAs), into primary care teams has been especially challenging, with both GPs and patients demonstrating uncertainty about what PAs are and are not capable of, and how they differ from doctors (Halter et al., 2020; Maashi et al., 2025). For GPs, achieving role clarity means moving away from being the sole repository of medical knowledge to becoming the leader of a diverse team, where protocols for delegation, supervision, and responsibility are well defined and understood by all team members (McDermott et al., 2019).

Nurses: Blurred Boundaries and the Ascent of Advanced Practice

Nursing is the largest health profession, and it consequently presents the most fluid and diverse scenery about SoP. The core nursing role is constantly vulnerable to boundary blurring both from "above"-that is, assuming medical tasks through role expansion-and from "below"-that is, delegating to lesser-qualified staff (Maier et al., 2018). The deepest evolution has probably been the worldwide spread of advanced practice nursing roles, such as NPs and CNSs.

Although these roles are designed to enhance access to care and utilise nursing expertise, they often create significant intra- and interprofessional role ambiguity. A 2021 systematic review by Woo et al. showed that lack of role clarity was a main barrier to NP integration, related to underutilization, opposition by physician groups, and also causing stress for the NPs themselves. Such ambiguity commonly focuses on issues like diagnostic authority, prescribing privileges, and autonomy with regard to management plans. Additionally, differentiation among distinct APN roles, such as NP versus CNS, is often unclear to other healthcare team members, including other nurses themselves, which may impede appropriate referral and collaboration (Bryant-Lukosius et al., 2017; Beshbishy, 2024). Among staff nurses, role ambiguity

is often associated with unsafe staffing levels and the need to delegate to health assistants who are either not well trained or whose roles are not clearly delineated, creating moral distress and concern for patient safety (Soósová et al., 2021). Achieving clarity for nursing requires strong regulatory frameworks for advanced practice, standardized job descriptions, and intentional education for all healthcare team members about the distinct competencies of different nursing roles.

Dentists: Isolation, Integration, and the Dental Team

Traditionally, the dental profession has been relatively insulated from the rest of the health care system. On the other hand, an increasing body of evidence regarding the oral-systemic health link creates pressure for integration (Genco & Borgnakke, 2013; Alruqi et al., 2024). This new integration opens new challenges in role clarity for dentists regarding their responsibilities to screen for diabetes and hypertension and refer these patients to their medical colleagues.

Within the dental practice itself, one of the most significant issues is the SOP for different team members. In many countries, the delegation of preventive and restorative tasks to dental therapists and hygienists is well established, although the boundaries are continuously negotiated. Financial considerations, perceived quality, or lack of trust may inhibit dentists from delegating procedures, with underutilization of the full capacity of the dental team a common consequence (Turner et al., 2020). The emergence of Dental Therapists in new regions, such as parts of the United States, has created some interprofessional tension and a need for clear practice acts that spell out independent and collaborative functions (Mertz et al., 2021). For dentists, role clarification involves acceptance of their leadership of the oral health team, optimizing delegation to enhance efficiency and access, and seeking pathways toward greater integration with primary medical care.

Health Assistants: The Cornerstone of Ambiguity

Health assistants are the two-faced Janus of health care: nursing assistants, medical assistants, dental assistants, and other support workers are indispensable in their place within the caregiving hierarchy but often precarious (Santos et al., 2017). At the core of their role is delegation and task-based work, which provides a wellspring of profound role ambiguity and ambiguity as identified by Wood et al. (2023). Unlike the regulated professions, HAs often have less standardized education and scopes of practice, which can vary dramatically even between units in the same hospital.

Studies consistently indicate that HAs are often asked to perform tasks outside of their formal training or comfort zone-a process known as "task creep"-while at the same time being undervalued and afforded little autonomy. Where there is ambiguity, this will result in high levels of stress, job

Saudi J. Med. Pub. Health Vol. 2 No. 2 (2025)

dissatisfaction, and turnover, which in destabilizes the whole healthcare team and negatively impacts patient care. Moreover, many HAs believe that they constitute "invisible" members of the healthcare team, with their perceptions of patient condition ignored by registered professionals. The COVID-19 pandemic emphasized these issues, placing the HAs in the front lines, many times without adequate support and recognition. Probably the most pressing requirement for HAs is for their roles to be clearly defined; this means developing nationally agreed, competency-based job descriptions, investment in their training and professional development, and, importantly, their formal inclusion in team communications and decision-making processes (Marzo et al., 2022).

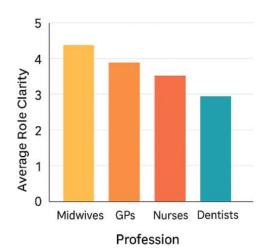


Figure 1: Comparison of the role clarity among professions.

Cross-Cutting Themes and Impacts

Analysis of these five provider groups reveals a number of strong cross-cutting themes that perpetuate ambiguity around the role across the healthcare system (Table 1). While regulatory bodies define legal scopes of practice, such frameworks can also simultaneously serve as a source of clarity and a barrier. Outdated regulations can stifle innovation and prevent professionals from practicing to the fullness of their education and competence-particularly problematic for APNs and midwives. On the other hand, the absence of any regulation for health assistants creates a void in which ambiguity prospers.

Poor role understanding is caused by a lack of early and sustained interprofessional education. Providers who learn in professional silos enter practice with stereotypes and a poor understanding of the skills and knowledge of others (Langton et al., 2021). Organization culture, which is heavily influenced by leadership, can either reinforce hierarchical boundaries that inhibit open communication or foster a culture of psychological safety where questions about roles and responsibilities are encouraged (Saragih et al., 2024; Pelone et al., 2017).

As professions develop and specialize, not only is role clarity challenged between professions, but also within professions. To clearly explain the difference between a GP and a specialist, a staff nurse and an NP, or a dental hygienist and a dental therapist requires honest communication and understanding, so confusion is minimal and team function maximized.

Provider	Primary Role Clarity/SoP Challenge	Key Consequences
Group		
Midwives	Maintaining autonomous practice within an	Erosion of professional autonomy, moral
	obstetric-led medical model; defining	distress, higher burnout, and potential for
	collaborative boundaries.	interprofessional conflict with obstetricians.
General	Managing an expanding generalist role;	Role overload, burnout, hesitation to delegate,
Practitioners	effective and safe delegation to other team	inefficiencies in team-based care, and patient
	members.	access issues.
Nurses	Blurred boundaries from task delegation and	Underutilization of APNs, confusion over
	expansion; differentiation of Advanced	responsibilities, moral distress, and intra-
	Practice Roles.	professional tension.
Dentists	Integration with the broader healthcare	Missed opportunities for early disease
	system; optimal delegation and utilization of	detection, inefficient practice management,
	the dental team.	and underutilization of hygienists/therapists.
Health	Pervasive ambiguity due to variable, task-	High job stress and turnover, feelings of being
Assistants	based, and poorly defined roles; "task	undervalued, risks to patient safety, and
	creep".	destabilization of the core team.

Strategies for Improving Role Clarity and **Optimizing Scope of Practice**

Addressing the challenges of role ambiguity requires a multi-faceted approach targeting organizational, and interpersonal levels (Table 2; Figure 2). What will be needed is a shift away from profession-centric regulation to one that is competency-based. This would allow scopes of practice to be much more flexible and responsive to emerging healthcare needs, thereby enabling all providers to work to their full capability. In the case of health assistants, basic regulatory standards and

certification would, for the first time, provide a foundational layer of clarity and recognition.

Interprofessional Education (IPE) needs to move beyond just isolated workshops and become integrated into the pre-licensure curriculum and into ongoing professional development. Simulation-based training and collaborative training of all team members, including the health assistants, is very effective in overcoming stereotyping and developing a shared understanding of roles (Poghosyan et al., 2018).

Organizations must therefore be proactive in taking steps that create clarity: co-designing detailed

competency matrices with frontline staff, having clear delegation protocols, using standardized communication tools like SBAR, and other approaches. "Role clarification" exercises during team meetings can be used to facilitate the surfacing and resolution of ambiguities within a safe environment (Suter et al., 2021). Leadership at every level sets the tone for collaboration. Leaders who model respectful communication, actively seek input from all team members, and address interprofessional conflict promptly are essential in creating a culture where role clarity can flourish (Santos et al., 2015).

Table 2: Evidence-Based Strategies to Enhance Role Clarity and Optimize Scopes of Practice

	Λf	Strategy	Example Application
Intervention	OI.	Strategy	Example Application
System	&	Transition to competency-based regulatory	Allowing Nurse Practitioners to prescribe
Policy		frameworks.	independently upon demonstration of
•			competency, rather than being restricted by
			outdated statutes.
		Y	
Education		Integrated Interprofessional Education	Joint simulation training for nursing, medical,
		(IPE) from pre-licensure through career.	and assistant students managing a complex
			patient scenario.
Organization		Co-design and implementation of clear	Creating a visual chart for a primary care team
O		delegation protocols and competency	outlining which team member (GP, NP, MA)
		matrices.	manages specific patient presentations.
Team	&	Regular interprofessional team meetings	A monthly huddle where the ward team
Leadership		with dedicated time for role negotiation and	(including health assistants) discusses recent
Leadership		clarification.	challenges and clarifies expectations for
		Ciarmeation.	
			specific tasks.
Individual		Advocacy and proactive communication	A Dental Therapist clearly explaining their
		about one's own role and scope.	capabilities and limitations to a new dentist in
			the practice.

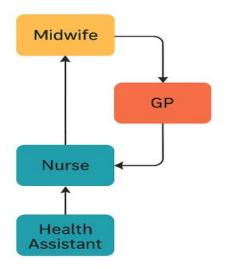


Figure 2: The scope of practice relation. Conclusion

This systematic review demonstrates that clarity of role and scope of practice are not abstract academic concepts but fundamental determinants of healthcare quality, safety, and provider well-being.

Yet, these challenges remain universal in nature, yet manifest in distinct ways: from the midwife advocating for physiological birth to the health assistant unsure of duties for the day. The resultant consequences of ambiguity-which are burnout, conflict, inefficiency, and patient harm-are too significant to ignore. The path forward requires an intentional and collective effort. Policymakers must become advocates for regulatory modernization. Educators must dissolve professional silos and instill a collaborative identity from the earliest phases of training.

Health care leaders must build the structures and culture that enable clear communication and mutual respect. And most importantly, the indispensable role of health assistants must be explicitly recognized, defined, and integrated into the team. However, the pursuit of optimal role clarity is not about setting rigid, impermeable boundaries among professions. Rather, it involves the creation of sufficient structure and understanding to allow for safe, flexible, and effective collaboration. This would be about building a health system in which every provider, from the general practitioner to the health assistant, is able to bring his or her unique skills to bear

Saudi J. Med. Pub. Health Vol. 2 No. 2 (2025)

to the fullest, bound together by a common mission of providing exceptional patient care. The labyrinth of professional roles is complex, but with a clear map built on evidence, trust, and shared purpose, it can be successfully navigated.

References

- Alruqi, A. F., Qaisi, H. M., Alosaimi, N. F., Alotibi, J. D., Majrashi, S. A. A., Al-Mutairi, M. A. F., ... & Mobarki, S. A. I. (2024). Tele-ICU and Critical Care Patient Nursing Care through Remote Monitoring. *Saudi Journal of Medicine* and *Public Health*, *I*(1), 85-93. https://doi.org/10.64483/jmph-50
- Al Sayah, F., Szafran, O., Robertson, S., Bell, N. R., & Williams, B. (2014). Nursing perspectives on factors influencing interdisciplinary teamwork in the C anadian primary care setting. *Journal of clinical nursing*, 23(19-20), 2968-2979. https://doi.org/10.1111/jocn.12547
- 3. Beshbishy, A. M. (2024). Advancements in Vaccination Tracking and Delivery Systems through Health Informatics: A Review of Digital Innovations and COVID-19 Impact. *Saudi Journal of Medicine and Public Health*, *1*(1), 16 26 . https://doi.org/10.64483/jmph-16
- 4. Bingham, J., Kalu, F. A., & Healy, M. (2023). The impact on midwives and their practice after caring for women who have a traumatic childbirth: A systematic review. *Birth*, *50*(4), 711-734. https://doi.org/10.1111/birt.12759
- Bryant-Lukosius, D., Valaitis, R., Martin-Misener, R., Donald, F., Peña, L. M., & Brousseau, L. (2017). Advanced practice nursing: a strategy for achieving universal health coverage and universal access to health. Revista latino-americana de enfermagem, 25, e2826.
- Corrigan, S., Howard, V., Gallagher, L., Smith, V., Hannon, K., Carroll, M., & Begley, C. (2022). Midwives' views of an evidence-based intervention to reduce caesarean section rates in Ireland. *Women and Birth*, 35(6), 536-546. https://doi.org/10.1016/j.wombi.2022.01.002
- 7. Genco, R. J., & Borgnakke, W. S. (2013). Risk factors for periodontal disease. *Periodontology* 2000, 62(1), 59-94. https://doi.org/10.1111/j.1600-0757.2012.00457.x.
- 8. Halter, M., Drennan, V., Wang, C., Wheeler, C., Gage, H., Nice, L., ... & Parle, J. (2020). Comparing physician associates and foundation year two doctors-in-training undertaking emergency medicine consultations in England: a mixed-methods study of processes and outcomes. *BMJ open*, 10(9), e037557. https://doi.org/10.1136/bmjopen-2020-037557
- 9. Langton, V., Dounas, D., Moore, A., Bacchi, S., & Thomas, J. (2021). The use of interprofessional simulation interventions in medical student education: a scoping review. *Focus on Health*

- Professional Education: A Multi-Professional Journal, 22(1), 33-67. https://search.informit.org/
- Marzo, R. R., ElSherif, M., Abdullah, M. S. A. M. B., Thew, H. Z., Chong, C., Soh, S. Y., ... & Lin, Y. (2022). Demographic and work-related factors associated with burnout, resilience, and quality of life among healthcare workers during the COVID-19 pandemic: A cross sectional study from Malaysia. Frontiers in Public Health, 10, 1021495.
 - https://doi.org/10.3389/fpubh.2022.1021495
- Maashi, F. M. M., Alfaifi, A. M. J., Maeshi, H. M., Alfaifi, I. M. H., Maashi, A. M. M., Alfaifi, F. H., ... & Mashi, K. M. M. (2025). Personalized Approaches to Pharmacotherapy and Physiotherapy in Obstetric Treatment: Improving Medication Safety and Physical Wellness for Pregnant Women. Saudi Journal of Medicine and Public Health, 2(2), 95-104. https://doi.org/10.64483/jmph-45
- 12. Maier, C. B., Köppen, J., & Busse, R. (2018). Task shifting between physicians and nurses in acute care hospitals: cross-sectional study in nine countries. *Human resources for health*, *16*(1), 24. https://doi.org/10.1186/s12960-018-0285-9
- Mather, M., Pettigrew, L. M., & Navaratnam, S. (2022). Barriers and facilitators to clinical behaviour change by primary care practitioners: a theory-informed systematic review of reviews using the Theoretical Domains Framework and Behaviour Change Wheel. *Systematic reviews*, 11(1), 180. https://doi.org/10.1186/s13643-022-02030-2
- Mertz, E., Kottek, A., Werts, M., Langelier, M., Surdu, S., & Moore, J. (2021). Dental therapists in the United States: health equity, advancing. *Medical Care*, 59, S441-S448. DOI: 10.1097/MLR.000000000001608
- 15. McDermott, I., Checkland, K., Moran, V., & Warwick-Giles, L. (2019). Achieving integrated care through commissioning of primary care services in the English NHS: a qualitative analysis. *Bmj Open*, 9(4), e027622. https://doi.org/10.1136/bmjopen-2018-027622
- 16. Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. *Human resources for Health*, *11*(1), 19. https://doi.org/10.1186/1478-4491-11-19
- 18. Pelone, F., Harrison, R., Goldman, J., & Zwarenstein, M. (2017). Interprofessional collaboration to improve professional practice and healthcare outcomes. *Cochrane database of*

- systematic reviews, https://doi.org/10.1002/14651858.CD000072.pu
- 19. Santos, J. P., Caetano, A., & Tavares, S. M. (2015). Is training leaders in functional leadership a useful tool for improving the performance of leadership functions and team effectiveness?. The Quarterly, 470-484. Leadership 26(3),https://doi.org/10.1016/j.leaqua.2015.02.010
- 20. Santos, J. L. G. D., Erdmann, A. L., Peiter, C. C., Alves, M. P., Lima, S. B. S. D., & Backes, V. M. S. (2017). Comparison between the working environment of nurse managers and nursing assistants in the hospital context. Revista da Escola de Enfermagem da USP, 51, e03300.
- 21. Saragih, I. D., Hsiao, C. T., Fann, W. C., Hsu, C. M., Saragih, I. S., & Lee, B. O. (2024). Impacts of interprofessional education on collaborative practice of healthcare professionals: a systematic review and meta-analysis. Nurse Education 136, https://doi.org/10.1016/j.nedt.2024.106136
- 22. Scanlon, A., Murphy, M., Smolowitz, J., & Lewis, V. (2023). Advanced Nursing Practice and Advanced Practice Nursing roles within low and lower-middle-income countries. Journal of Nursing Scholarship, 55(2), 484-493. https://doi.org/10.1111/jnu.12838
- 23. Simmelink, R., Neppelenbroek, E., Pouwels, A., van der Lee, N., Pajkrt, E., Ziesemer, K. A., ... & Nieuwenhuijze, M. (2025). Understanding how midwife-led continuity of care can be implemented and under what circumstances: a realist review. BMJ open, 15(2), e091968. https://doi.org/10.1136/bmjopen-2024-091968
- 24. Soósová, M. S. (2021). Association between nurses' burnout, hospital patient safety climate and quality of nursing care. Central European Journal of Nursing and Midwifery, 12(1), 245. doi: 10.15452/CEJNM.2021.12.0039
- 25. Suter, E., Deutschlander, S., Mickelson, G., Nurani, Z., Lait, J., Harrison, L., ... & Grymonpre, R. (2012). Can interprofessional collaboration provide health human resources solutions? A knowledge synthesis. Journal of interprofessional 26(4), 261-268. https://doi.org/10.3109/13561820.2012.663014
- 26. Teper, M. H., Vedel, I., Yang, X. Q., Margo-Dermer, E., & Hudon, C. (2020). Understanding barriers to and facilitators of case management in primary care: A systematic review and thematic synthesis. The Annals of Family Medicine, 18(4), 355-363. https://doi.org/10.1370/afm.2555
- 27. Turner, S., Symeonoglou, P., & Ross, M. K. (2020). The role of dental hygienists and therapists in paediatric oral healthcare in Scotland. British Dental Journal. https://doi.org/10.1038/s41415-020-1980-1

- 28. Woo, B. F. Y., Lee, J. X. Y., & Tam, W. W. S. (2017). The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: a systematic review. Human resources for health, 15(1), https://doi.org/10.1186/s12960-017-0237-9
- 29. World Health Organization. (2018). Integrated care for older people (ICOPE) implementation framework: guidance for systems and services. World Health Organization.
- 30. Wood, S., Johansson, J. F., Wray, F., & Forster, A. (2023). The role of the healthcare assistant on a stroke unit: A scoping review. Clinical Rehabilitation. *37*(9), 1278-1290. https://doi.org/10.1177/02692155231165353
- 31. Xyrichis, A., Reeves, S., & Zwarenstein, M. (2018). Examining the nature of interprofessional practice: An initial framework validation and creation of the InterProfessional Activity Classification Tool (InterPACT). Journal of interprofessional care, 32(4),416-425. https://doi.org/10.1080/13561820.2017.1408576