



THE ROLE OF ADVANCED NURSING PRACTICE IN ENHANCING COLLABORATION WITH PHYSICIANS AND MEDICAL LABORATORY IN THE SAUDI HEALTHCARE SYSTEM

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Abstract

The Kingdom of Saudi Arabia (KSA) is undergoing a profound transformation of its healthcare sector, driven by the ambitious goals of Saudi Vision 2030 and its Health Sector Transformation Program (HSTP). This national imperative demands innovative solutions to enhance healthcare quality, efficiency, and accessibility. A critical challenge to achieving these goals is the optimization of interprofessional collaboration (IPC), particularly between nurses and physicians, which is often hampered by structural and cultural factors, notably a high degree of power distance. This manuscript argues that the formal recognition and strategic integration of Advanced Nursing Practice (ANP) roles are essential to bridging this collaborative gap. Drawing on established IPC models and Power Distance Theory, we propose a conceptual framework—the ANP-IPC Integration Model for Saudi Arabia—that positions the ANP as a catalyst for partnership, shared decision-making, and mutual respect. The ANP's advanced clinical knowledge and leadership competencies enable them to mediate the traditional hierarchy, fostering a culture of true interdependency. We analyze the current, often informal, status of ANP in the KSA and conclude with four evidence-based policy recommendations focusing on regulatory clarity, educational standardization, cultural intervention, and structural support. Formalizing ANP is not merely a professional advancement for nursing but a strategic necessity for the KSA to realize the full potential of its healthcare transformation under Vision 2030.

1. Introduction

1.1. Background and Context

The global healthcare landscape is increasingly defined by the complexity of patient needs, necessitating a shift from siloed, profession-centric care to integrated, team-based models [1]. Effective Interprofessional Collaboration (IPC), characterized by shared goals, mutual respect, and shared decision-making, is consistently linked to improved patient safety, reduced medical errors, and enhanced patient outcomes [2].

The Saudi Arabian healthcare system, one of the largest and most rapidly developing in the Middle East, is at a pivotal juncture. Historically, the system has relied on a hierarchical structure, often influenced by traditional cultural norms and a reliance on an expatriate workforce [3]. However, the nation's strategic roadmap, Saudi Vision 2030, has placed an unprecedented focus on transforming this system to be more comprehensive, effective, and patient-centered [4].

1.2. The Imperative of Saudi Vision 2030

The Health Sector Transformation Program (HSTP), a key pillar of Vision 2030, aims to restructure the healthcare system to improve quality, efficiency, and access [5]. This transformation includes a strong emphasis on preventative care, primary healthcare, and the localization of the workforce. To meet these ambitious targets, the KSA requires a highly skilled, flexible, and domestically grown professional workforce capable of assuming expanded roles.

The nursing profession is central to this vision. The current challenges of workforce shortages, high turnover, and an unclear scope of practice for Saudi nurses have been identified as barriers to achieving Vision 2030 goals [3]. The introduction and formalization of Advanced Nursing Practice (ANP) roles—such as Nurse Practitioners and Clinical Nurse Specialists—represent a strategic opportunity to address these challenges, elevate the nursing profession, and provide the high-level clinical leadership required for the new models of care [6].

1.3. Problem Statement and Research Aim

Despite the clear need for IPC to support the HSTP, nurse-physician collaboration in the KSA faces significant hurdles. Research indicates that communication and collaboration are often suboptimal, particularly in high-acuity settings [7]. These challenges are compounded by deep-seated cultural and structural issues, including the influence of high power distance and the lack of formal regulatory support for advanced nursing roles [8]. While ANP roles have emerged informally, often filled by experienced expatriate nurses, the lack of national legislation and standardized education limits their full potential and sustainability [6].

Aim: This article aims to explore the potential role of formally recognized and strategically integrated Advanced Nursing Practice in enhancing collaboration with physicians in the Saudi healthcare system. Furthermore, it seeks to propose a conceptual framework to guide the policy and structural changes necessary for this integration to successfully mediate cultural and structural barriers and support the realization of Saudi Vision 2030.

2. Conceptual Framework and Theoretical Foundation

2.1. Defining Advanced Nursing Practice (ANP)

Globally, ANP is defined by the International Council of Nurses (ICN) as a role encompassing advanced clinical knowledge, expanded scope of practice, and complex decision-making, typically requiring a master's degree [9]. In the KSA, the ANP role is still in its nascent stages. While experienced nurses perform advanced functions, the lack of a national consensus model means there is no standardized education, certification, or legal scope of practice [6]. This ambiguity is a major

impediment to their effective integration into the healthcare team and their ability to function as equal partners with physicians.

2.2. Interprofessional Collaboration (IPC) Models

The foundation of this analysis rests on established models of IPC. D'Amour et al. [1] define collaboration through five core concepts: sharing, partnership, power, interdependency, and process.

- **Sharing:** Jointly sharing information and resources.
- **Partnership:** Working together towards a common goal, where all members are valued.
- **Power:** Acknowledging that power dynamics exist, but working to ensure that power is shared and distributed based on expertise, not hierarchy.
- **Interdependency:** Recognizing that the successful outcome requires the unique contributions of all professions.
- **Process:** The ongoing mechanisms and structures that facilitate the collaborative work.

In the Saudi context, the concept of power is the most critical and challenging component.

2.3. Cultural and Structural Determinants of Collaboration

The effectiveness of IPC is inextricably linked to the cultural context in which it operates.

Power Distance Theory

Hofstede's Power Distance Index (PDI) measures the extent to which less powerful members of institutions and organizations accept and expect that power is distributed unequally [10]. Saudi culture is generally characterized by a high PDI, which translates into a hierarchical healthcare environment where physicians are traditionally accorded a high degree of authority, and nurses are expected to be deferential [11].

In a high power distance environment, nurses may be reluctant to question physician orders, offer critical input, or report errors, a phenomenon often exacerbated by the cultural norm of face-saving [12]. This dynamic directly undermines the core IPC principles of shared power and open communication, leading to suboptimal patient care and increased risk [13].

Structural Barriers

Beyond culture, structural barriers impede ANP integration and IPC:

- 1 Lack of IPE:** Limited interprofessional education (IPE) in medical and nursing curricula means professionals enter the workforce without the necessary skills for team-based practice [14].
- 2 Regulatory Gaps:** The absence of a clear ANP regulatory framework prevents ANPs from exercising their full scope of practice, leading to role confusion and physician skepticism [14].
- 3 Workforce Structure:** The reliance on expatriate nurses in advanced roles, while providing immediate skill, hinders the long-term localization and professional development goals of Vision 2030.

2.4. Proposed Conceptual Framework: The ANP-IPC Integration Model for Saudi Arabia

We propose the ANP-IPC Integration Model for Saudi Arabia (see Table 1) as a guiding framework for policy and implementation. This model adapts established NP integration frameworks [15] to specifically address the unique cultural and strategic context of the KSA. The central tenet of the model is that the ANP role acts as the catalyst for transforming hierarchical IPC into true collaborative IPC.

The ANP, by virtue of their advanced education and clinical expertise, possesses the necessary professional capital to command mutual respect from physicians, thereby disrupting the traditional high power distance dynamic. They are positioned to function as a bridge between the medical and general nursing teams, translating complex clinical information and facilitating structured communication.

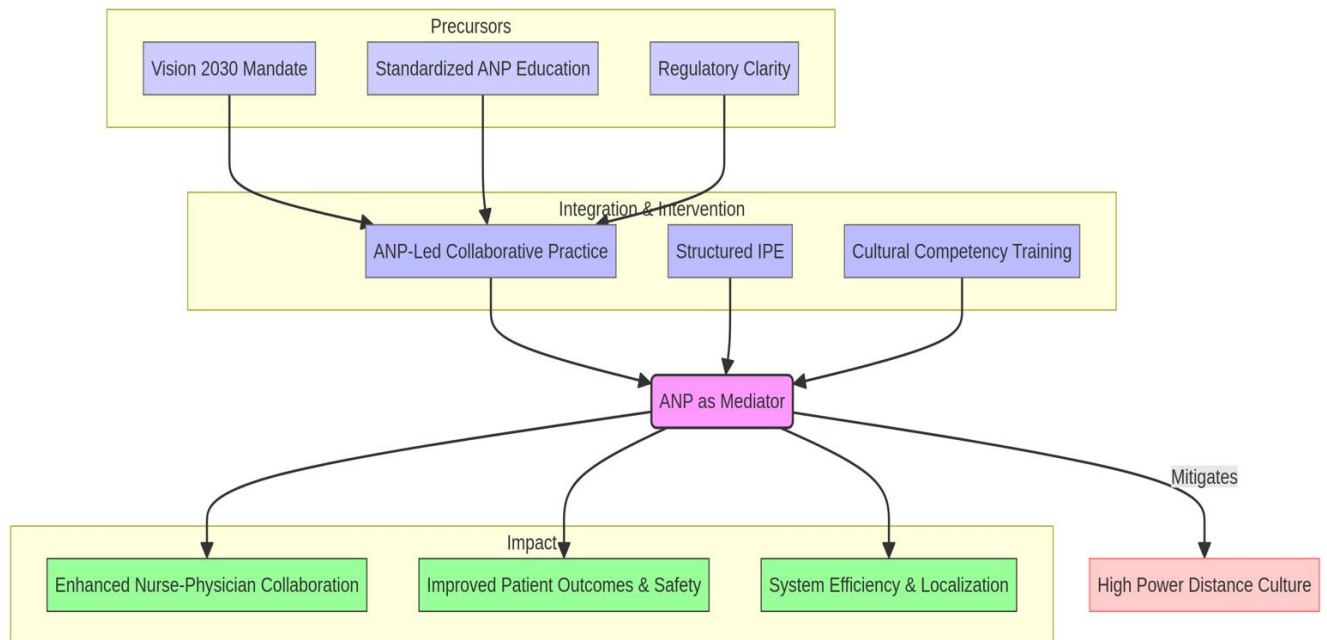


Figure 1. Conceptual Framework

Table 1: The ANP-IPC Integration Model for Saudi Arabia

Component	Description	Strategic Alignment with Vision 2030
Precursors (Inputs)	National mandate for ANP, standardized graduate-level education, clear national regulatory framework, funding for new ANP positions.	Localization of workforce, quality improvement, efficiency.
Process (Throughput)	ANP as Mediator: ANP-led collaborative rounds, structured interprofessional team meetings, formalized shared decision-making protocols.	Patient-centered care, new Models of Care (MoC).
Cultural Intervention	Mandatory IPE and cultural competence training for all staff, focusing on low power distance communication and psychological safety.	Enhancing quality of care, creating an attractive work environment.
Outcomes (Impact)	Enhanced nurse-physician collaboration, improved patient safety and clinical outcomes, increased workforce retention, successful implementation of HSTP goals.	Realization of HSTP and Vision 2030 objectives.

3. Discussion and Analysis

3.1. ANP as a Mediator of Power Distance

The most significant contribution of the ANP role to IPC in the KSA is its potential to mitigate the effects of high power distance. The ANP's advanced knowledge base and clinical autonomy fundamentally change the perception of the nursing role from a subordinate position to a professional partner [16].

When an ANP is formally credentialed and recognized, their clinical input is perceived as evidence-based and authoritative, rather than merely a suggestion from a general nurse. This professional parity fosters mutual trust and respect, which are the cornerstones of effective collaboration. For example, in complex care settings, an ANP can lead the nursing team's contribution to the care plan, engaging in direct, peer-to-peer dialogue with the physician, thereby normalizing a lower power distance communication style within the team [13]. This shift in communication style is crucial for patient safety, as it encourages open discussion of potential errors and clinical concerns.

3.2. Workforce Structure and Localization

The formalization of ANP roles is a direct mechanism for achieving the workforce localization goals of Vision 2030. Currently, many advanced roles are filled by expatriate nurses [6]. By establishing clear career pathways for ANPs, the KSA can:

4 Attract and Retain Saudi Talent: Offering advanced, autonomous, and well-compensated roles provides a powerful incentive for Saudi nurses to pursue higher education and remain in the profession long-term.

5 Develop Clinical Leadership: ANPs serve as clinical leaders and mentors, elevating the standard of practice for the entire nursing workforce and ensuring the sustainability of high-quality care models [8].

6 Optimize Physician Time: By managing complex, chronic, and preventative care independently, ANPs free up physician time to focus on the most acute and specialized cases, thereby improving system efficiency—a core HSTP objective [5].

4. Policy Recommendations and Conclusion

The integration of ANP is a strategic investment that will yield significant returns in quality of care, system efficiency, and the successful realization of Saudi Vision 2030. To move ANP from an informal, ad-hoc function to a formalized, collaborative role, the following four policy recommendations are critical:

4.1. Policy Recommendations

Recommendation 1: Establish a National ANP Regulatory Framework

The Saudi Commission for Health Specialties (SCFHS) must urgently develop and implement a national consensus model for ANP. This framework must clearly define:

- **Scope of Practice:** A legally protected and standardized set of autonomous and collaborative functions.
- **Credentialing and Certification:** A rigorous, standardized national certification process for all ANP roles.
- **Title Protection:** Legal protection of the ANP title to ensure clarity for both the public and other healthcare professionals.

Recommendation 2: Mandate Graduate-Level Educational Standardization

All ANP programs in the KSA must be standardized at the master's level, with a curriculum that emphasizes advanced clinical practice, leadership, research utilization, and, critically, Interprofessional Education (IPE). IPE must be integrated into both medical and nursing curricula to foster collaborative skills and mutual understanding from the earliest stages of professional development [7].

Recommendation 3: Implement Cultural Competence and Low Power Distance Training

Mandatory, recurring training for all healthcare professionals (physicians, nurses, and administrators) is required to address the cultural barriers to IPC. This training should focus on:

- Power Distance Mitigation: Techniques for structured, non-hierarchical communication and shared decision-making.
- Psychological Safety: Creating an environment where nurses feel safe to speak up, report errors, and challenge decisions based on clinical evidence, without fear of reprisal or loss of face [10].

Recommendation 4: Create Dedicated and Funded ANP Positions

The Ministry of Health (MOH) and private sector providers must create and fund dedicated ANP positions within the new Models of Care (MoC) mandated by the HSTP [11]. These positions must include appropriate compensation and be formally integrated into the organizational structure, ensuring that ANPs are utilized to their full scope of practice and recognized as essential members of the interprofessional team.

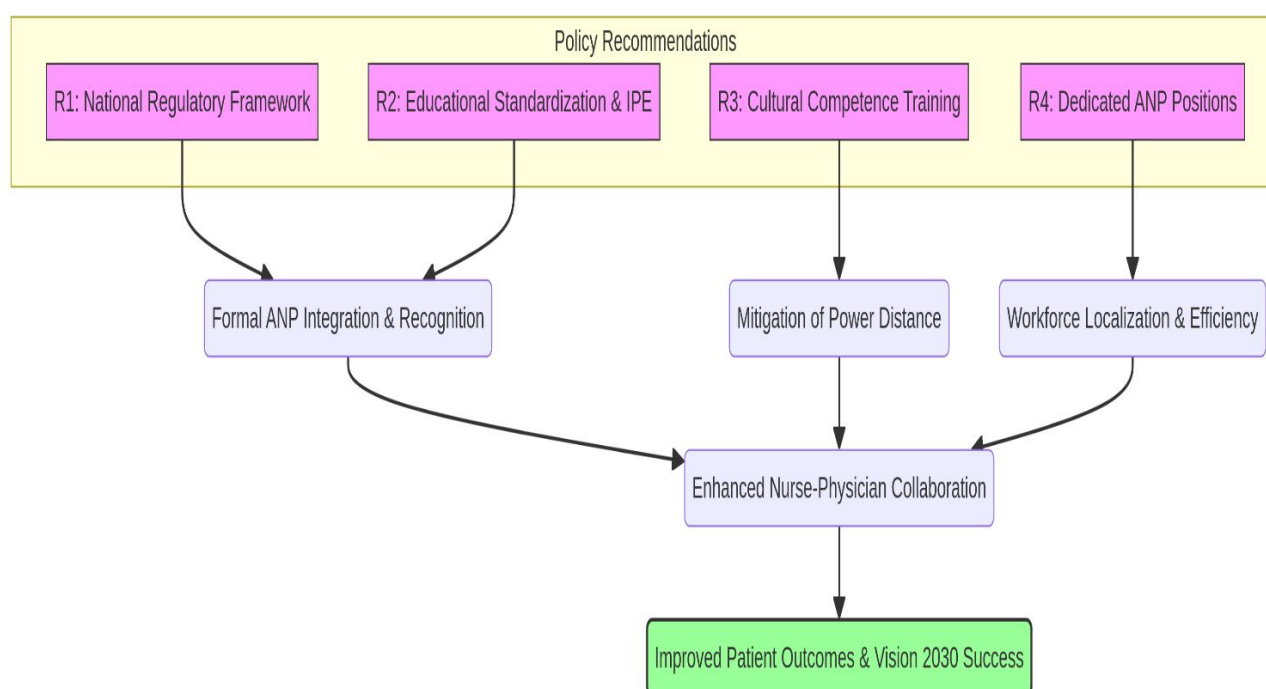


Figure 2. Policy Recommendations

4.2. Conclusion

The transformation of the Saudi healthcare system envisioned under Vision 2030 requires not only structural reform but a fundamental evolution in professional roles, team dynamics, and models of care. This review highlights that Advanced Nursing Practice (ANP) represents one of the most strategically powerful—yet currently underutilized—mechanisms for achieving these system-wide goals. Across global evidence and within the emerging Saudi context, ANPs demonstrate the unique capacity to elevate clinical quality, enhance patient safety, and strengthen interprofessional collaboration, particularly in environments challenged by hierarchical structures and high power distance. The analysis shows that nurse–physician collaboration in Saudi Arabia remains constrained by cultural norms, ambiguity in role expectations, limited interprofessional education, and the absence of a national regulatory framework to legitimize advanced nursing roles. These barriers directly affect communication, shared decision-making, and the overall performance of clinical teams. Integrating ANP into the Saudi healthcare system will not only address these barriers but also accelerate the shift toward team-based, patient-centered care. ANPs, with their advanced expertise and leadership competencies, are positioned to mediate power imbalances, facilitate

effective communication between disciplines, and reinforce a culture of mutual respect core elements essential for safe and high-quality care.

Furthermore, formalizing ANP roles directly aligns with the national goal of workforce localization. Creating advanced, specialized, well-compensated nursing pathways will strengthen recruitment and retention of Saudi nurses, reduce reliance on expatriate expertise, and build sustainable clinical leadership from within the local workforce. This shift will help ensure that the new Models of Care (MoC) under the Health Sector Transformation Program are implemented with continuity, cultural alignment, and long-term strategic impact. The policy recommendations outlined establishing a national regulatory framework, standardizing graduate-level education, mandating cultural competence and low-power-distance training, and funding dedicated ANP positions form an essential foundation for realizing these benefits. Together, they create a system in which ANPs are not functioning informally or peripherally but are formally empowered as clinical partners and leaders in multidisciplinary teams. In conclusion, the integration of Advanced Nursing Practice is not simply an expansion of nursing responsibilities; it is a national strategy to strengthen interprofessional collaboration, elevate the quality and safety of care, and advance the objectives of Vision 2030.

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