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Lived experiences of nurse practitioners in Saudi Arabia: a phenomenological study

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Abstract

Background The role of nurse practitioners (NPs) in Saudi Arabia is undergoing rapid evolution owing to the rising demand and shortage of healthcare providers. However, little is known about the lived experiences of NPs working in the Saudi healthcare system. Therefore, this study aimed to explore the lived experiences of NPs working in the Saudi healthcare system.

Methods A phenomenological approach with a purposive sampling technique was utilized to recruit self-identified NPs. Data were collected from ten NPs between June 2022 and December 2024 via semi-structured interviews. Participants were asked to describe their lived experiences as NPs in Saudi Arabia. Thematic analysis following Braun and Clarke's framework was conducted.

Results The following five key themes emerged from the analysis: "self-description as an NP"; "challenges for NPs Working in Saudi Arabia"; "experiences with patients, families, and healthcare providers"; "facilitators of the NP role implementation"; and "future of the NP role in Saudi Arabia." Participants described themselves as specialized based on their experience or education, advanced training, having a postgraduate degree or board certification, or practicing independently. Their experiences were influenced by challenges such as lack of professional classification and scope of practice for NPs, lack of leadership support, lack of community awareness, and unfair pay. Their experiences with patients were characterized with unfamiliarity followed by acceptance and trust. Some registered nurses were resistant toward NPs whereas others were supportive and collaborative. Physicians were mostly supportive and demanding of NPs in their teams. A standardized scope of practice, having prior clinical experience, receiving structured training, and fair pay perceived as facilitators. Participants viewed the future of NPs in Saudi Arabia as promising and progressing toward the right direction.

Conclusion Participants demonstrated a consistent professional identity, grounded in advanced education and specialized training. However, their experiences were shaped with challenges. Despite the identified challenges, the optimism surrounding the future of NPs reflects a broader recognition of its potential to enhance patient care in the

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context of Saudi Vision 2030. Establishing clear regulatory frameworks, ensuring fair compensation, and fostering interprofessional collaboration will be key to implementing the role of NPs in Saudi Arabia.

Keywords Nurse practitioner, Lived experience, Phenomenological approach, Saudi Arabia, Qualitative study

Background

Nurse Practitioners (NPs) are advanced practice nurses (APNs) who are highly educated and trained to play a critical role in providing accessible, high-quality healthcare worldwide. They combine clinical expertise with a patient-centered approach to provide a broad range of services—from assessing and diagnosing illnesses to managing treatment plans and promoting overall wellness. NPs are expected to complete graduate-level education, with a minimum requirement of a master's degree [1]. However, the path to becoming an NP varies around the world. While many countries require a master's degree as the minimum qualification, others recognize other educational qualifications. Regardless of these variations, NPs contribute significantly to improving healthcare access, enhancing patient outcomes, and addressing workforce shortages, especially in underserved areas [1].

The NP role has expanded worldwide over the past few decades to meet rising healthcare demands in countries such as the United States, Canada, the United Kingdom, and Australia where NPs are becoming integral elements of the healthcare delivery system [2, 3]. Owing to the ongoing healthcare transformation under the Saudi Vision 2030, the value of NPs in the healthcare system has recently begun to be recognized [4, 5]. Consequently, a shift toward NPs' incorporation into the healthcare system is underway to facilitate access to healthcare services, improve the quality and efficiency of healthcare services, and prevent health risks [6].

Saudi Arabia has taken gradual yet deliberate steps to develop and implement NPs' role. Some nursing schools and healthcare systems have sponsored nurses to pursue NP degrees abroad; efforts have also been made to establish local NP academic programs and to implement the NP role in selected hospitals and clinical settings. However, the number of NPs in Saudi Arabia remains relatively limited [6, 7]. Despite these initial advancements, the development of the NP profession continues to face significant policy and regulatory challenges. Currently, there is no formal licensure pathway or clearly defined scope of practice for NPs within the national regulatory framework. This lack of formal recognition, combined with limited postgraduate training opportunities and ambiguous role integration within healthcare institutions, restricts NPs from practicing to the full extent of their education and competencies. For NPs to be effectively integrated into the healthcare system, supportive policies, legislative action, and regulatory reform are essential to clearly define their roles, authorize their

practice, and ensure sustainable implementation across the country. To support such efforts and influence health policy reform toward the full integration of advanced practice nursing (APN) roles in the Saudi healthcare system, several studies have been conducted. These studies explored how physicians [8], nurses [6, 9, 10], nursing academic leaders [5], executive nursing leaders [4], and patients [2] perceive the NP role in Saudi Arabia. Additionally, efforts have been made to identify and validate core competencies to guide role development and standardization [11].

Various challenges and facilitators have influenced the complete implementation and integration of APN roles within healthcare systems globally, including in Saudi Arabia [3–5, 12]. In the context of the challenges and facilitators affecting the implementation of APNs in Saudi Arabia, this aspect has not been explored from the perspective of NPs' lived experiences. Lived experiences refer to how individuals perceive and understand their roles within their environments and daily interactions. Considering NPs' lived experiences can reveal how they view themselves at work, such as their roles, challenges, and the support systems integrated into the Saudi Arabian healthcare system.

There is limited research that explores the lived experiences of NPs in the Middle East, particularly in Saudi Arabia. Therefore, conducting a qualitative phenomenological study on their lived experiences is crucial especially at this developmental stage. This study explored NPs' lived experiences, providing insights into their challenges, support systems, and barriers at the individual level. Our findings can help understand the necessary support required to increase the number of NPs and address the challenges they face in integrating their roles into the healthcare system.

Methods

Design

A descriptive phenomenological approach was utilized to explore the lived experiences of NPs in diverse healthcare settings in Saudi Arabia. The findings are reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines [13].

Recruitment and participants

Given the absence of a formal NP registry or licensure framework in Saudi Arabia, participants were recruited using purposive and snowball sampling methods. Initial participants were identified through the principal

investigator's professional knowledge of individuals educated and trained as NPs and/or to practice activities within the NP scope, and who were actively engaged in NP-related roles within their institutions. These participants were then invited to refer other eligible colleagues. A purposive sampling method combined with a snowballing technique was used to recruit ten NPs for this qualitative study. The inclusion criteria were: (1) adults aged ≥ 18 years who self-identified as NPs, (2) currently practicing NPs in a healthcare facility in Saudi Arabia, and (3) able to read, speak, and write in English. Participants were excluded if they did not meet the inclusion criteria, reported that activities within the NP scope of practice in their settings were provided solely or mostly by physicians or other non-NP healthcare professionals, or were not actively engaged in NP practice within a healthcare facility in Saudi Arabia.

To enhance verification, items related to the type of clinical services provided, taken directly from the *National Survey of Primary Care Physicians and Nurse Practitioners* developed by Donelan et al. [14], were included in the online survey. These items asked participants whether they personally provided services such as annual physicals and preventive screenings, follow-up visits for chronic conditions (e.g., hypertension, diabetes), care for acute illnesses, patient or family education, and care coordination at transitions. These responses were used to confirm that participants were actively engaged in NP-specific clinical activities. Respondents who indicated that such services were delivered solely or primarily by physicians or other healthcare staff were excluded from the study.

Data collection

A semi-structured interview guide (see Supplemental File 1) was developed based on relevant literature [8, 15, 16] and input from the research team to explore nurse practitioners' self-perception, lived experiences, inter-professional relationships, institutional support, educational preparation, role challenges, and future outlook within the Saudi Arabian healthcare context. The individual interviews were conducted between June 2022 and December 2024. The extended data collection period was necessary due to the limited number of eligible NPs in Saudi Arabia, along with logistical and recruitment challenges. Additionally, some potential participants were hesitant to take part in the study, possibly because of uncertainties surrounding the formal recognition and regulation of NPs at the national level. These factors were influenced by the recent implementation and ongoing evolution of the NP role in the country, which affected both the availability and willingness of participants.

Data collection and analysis occurred concurrently, providing ongoing insights into thematic emergence.

Data saturation, which is defined as the point at which no new themes or insights emerged [17], was achieved after approximately eight interviews. The final two interviews reinforced existing findings and contributed to the depth and trustworthiness of the data.

While the Saudi healthcare system has witnessed progressive discussions surrounding the NP role, no major regulatory changes were implemented during the data collection period. Any evolving perceptions expressed by participants were treated as meaningful reflections of their lived experiences and were thematically integrated into the analysis. Throughout the data collection process, the research team remained reflexive and attentive to potential time-based and policy-related shifts that could influence participants' experiences. This approach helped ensure that the findings remained contextually grounded while capturing the complexities of a dynamic healthcare environment.

Eligible participants first received email invitations that introduced the study and included a link to complete an online survey. In addition, participants were assigned a unique study code, which they used to complete the survey. The invitation also requested participants to provide suitable times for the interviews. Those who consented to participate received a follow-up email confirming the scheduled interview time along with a secure link for a virtual meeting via Zoom. At the start of each interview, participants were notified that the session would be recorded for data analysis and were asked to speak in English to ensure accurate transcription.

Data analysis

Demographic characteristics were analyzed using descriptive statistics using SPSS version 29 (SPSS Inc., Chicago, IL, USA) [18]. Thematic data analysis was conducted following the approach outlined by Braun and Clarke [19]. All interviews were recorded on secured cloud storage, transcribed verbatim using NVivo (QSR International, 2020), and de-identified. Two authors, including the first author, reviewed the transcripts against the recordings to ensure accuracy. Three authors read and re-read the transcripts individually to familiarize themselves with the data and provide initial codes and themes. One author used NVivo (QSR International, 2020) for coding, whereas two authors manually conducted coding. The authors then met to discuss their findings, reaching consensus on the emerging themes and subthemes. The findings and relevant quotes were discussed and reviewed with authors who were not part of the data collection, transcription, or analysis process.

Ethical consideration

The study was approved by the Institutional Review Board of King Saud University (IRB # 22/0594/IRB) prior

Table 1 Demographics characteristics (N = 10)

Variables	n (%)
Sex	
Female	8 (80%)
Male	2 (20%)
Age	
26–30 years	4 (40%)
31–35 years	4 (40%)
> 35 years	2 (20%)
Highest level of education	
Bachelor of Science in Nursing	1 (10%)
Master of Science in Nursing	9 (90%)
Country of highest education	
United States of America	7 (70%)
Saudi Arabia	3 (30%)
Time since highest degree awarded	
≤ 4 years	7 (70%)
> 4 years	3 (30%)
Years of experience as a staff nurse	
< 6 years	5 (50%)
≥ 6 years	5 (50%)
Years of experience as a nurse practitioner	
≤ 2 years	4 (40%)
> 2 years	6 (60%)
Current practice specialty	
Critical care	5 (50%)
Other specialties	5 (50%)

to participant recruitment. Participants who expressed interest in the study were sent an email containing links to the informed consent form and survey. The informed consent form included information about the study purpose, procedure, potential risks and benefits, rights of the participants, and confidentiality disclosure. Participants were asked to provide their consent before completing the survey and beginning the interview. The first author then worked with each participant to arrange a convenient time for the interview.

Rigor and reflexivity

This study employed a rigorous approach to ensure the trustworthiness of its analysis and findings, focusing on credibility, dependability, confirmability, and transferability. To enhance credibility, the research team comprised APN experts and professionals from regulatory and clinical sectors, whose insights were instrumental in shaping and refining the interview questions to address key aspects of APN implementation. Dependability was achieved by systematically documenting each stage of the research, allowing for transparency and reproducibility. To promote confirmability, the authors engaged in collaborative discussions, reaching a consensus on the coding and thematic analysis to reduce potential bias, with findings reported in alignment with COREQ guidelines. Finally, transferability was supported by providing

comprehensive, detailed descriptions of the phenomenon, enabling others to assess the relevance of the findings in different settings.

Reflexivity was maintained throughout the research process. The research team, comprising APNs, clinicians, and regulatory experts, remained aware of how their professional backgrounds could influence data interpretation. Their close familiarity with the APN context enriched the study but required continuous reflection. Ongoing critical reflection and regular team discussions helped examine assumptions and ensure that findings were grounded in participants' lived experiences.

Results

Table 1 presents the demographic characteristics of the study sample.

The following five key themes emerged from thematic data analysis: “self-description as an NP”; “experiences as NPs working in Saudi Arabia”; “experiences with patients, families, and healthcare providers”; “facilitators of the NP role implementation”; and “future of the NP role in Saudi Arabia.”

Self-description as an NP

Participants described themselves as NPs working in the Saudi healthcare system using five subthemes: specialization based on experience or education, advanced training, postgraduate degree, board certification, and independent practice. Specialization based on clinical experience in the specialty area or obtaining an NP degree emerged as a significant description as one participant stated:

I define myself as a nurse practitioner. Based on my experience ... all my experience was in pediatric and acute pediatric ICU [intensive care unit]. I did my program as a pediatric nurse practitioner in the state (The United States). (#14)

Receiving advanced knowledge and training as a requirement to be an NP was frequently mentioned as one participant stated:

As someone who has a postgraduate degree with advanced knowledge, pathophysiology, pharmacological and assessment, [and] physical assessment with the other advanced practice... (#10)

Similarly, board certification emerged frequently as participants described their role as NPs:

I'm board-certified from the U.S., and I am qualified to work in the U.S. as a nurse practitioner. However,

the certification is limited to the U.S.; here in Saudi Arabia, we don't have this sort of certification. (#19)

Participants viewed their role as NPs different from their role as registered nurses (RNs), characterizing it as practicing beyond the scope of RN and as independent practice:

As a nurse practitioner ... by prescribing them [patients] the right treatments, therapies, and medications, conducting more holistic assessments, advanced physical exams, and detailed evaluations, referring them to appropriate services, spending more time with them, educating them, and counseling them in all aspects of care. (#11)

Another participant stated:

As a nurse practitioner, I became more independent, I have my clinic, [and] I have my own role. I can make my own decisions. (#14)

Challenges for NPs working in Saudi Arabia

Participants described their experience working as NPs in Saudi Arabia as a struggle as one participant stated:

It's a struggle. It's a real struggle. (#10)

Participants identified several challenges they encountered as NPs working in Saudi Arabia. Most participants viewed the lack of regulations that define the roles and responsibilities of NPs in Saudi Arabia as a significant challenge. One participant shared:

The main thing is lack of regulations in Saudi Arabia because we are just [taking] baby steps now with the regulations. (#16)

In addition, participants revealed that the lack of a defined scope of practice and professional classification resulted in a lack of core competencies and job descriptions specifying tasks and responsibilities of the NPs and the collaboration agreements needed to enable them to practice safely and independently. Consequently, NPs in different healthcare settings were required to develop their own job descriptions and define their own scope of practice:

I came to work without [a] collaborative agreement, without competency to follow ... It wasn't a clear path for me—what to expect and what the team [was] expecting from me to do, so I came trying to define a scope for myself. (#10)

Another participant stated the following:

At least we will need a job description that involves or covers the core responsibilities for the nurse practitioner. (#15)

Moreover, legal concerns emerged as a significant challenge in participants' experience. Participants expressed frustration regarding the regulatory limitations that restricted their ability to fully exercise their clinical roles. One participant explained the following:

I believe it's legal things. They cannot give us the privilege because we didn't get recognition from the council and we didn't have the privilege from the council, so they cannot give it to us. (#11)

Reflecting on their experiences, participants expressed their frustration with the low pay for NPs:

Unfortunately, if you ask me about salary and distinct benefits, still we are registered nurse. (#11)

Lack of administrative support from nursing leaders was described as a major challenge faced by NPs in Saudi Arabia. One participant expressed this frustration stating the following:

Support from the leaders, support from the director of nursing, support from nursing departments—especially because, unfortunately, there is nothing. There is no support; I can say there is zero support. (#11)

The lack of awareness about the role of NPs was frequently mentioned as a barrier to practicing as an NP:

People not knowing what nurse practitioner means? ... Even the healthcare community and the medical community itself ... So, when you go and try to explain to them what are we, what do we do, their mind instantly goes to, 'so you are a nurse, so you are a doctor.' Nothing in between. (#19)

Experience with patients, nurses, and physicians

Participants highlighted the strong relationships they built with patients and families, emphasizing the importance of continuous care and trust. Long-term interactions allowed them to develop familiarity with their patients, leading to better communication and satisfaction. One participant shared:

I really have a good communication, good connection with the patients and caregivers as well in the

clinic. Since I started work three years ago, I already know my patients, my list. When I come in the morning, I know these patients, their social background, [and] their history. They have been following with me for many years now. They feel happy. (#11)

Trust was also seen as a key factor in patient-provider relationships:

I don't see this as an issue at all because, for our population, once they trust you, they trust you. It doesn't matter if you are a physician, a nurse, or a practitioner. (#11)

NPs' experience with physicians significantly influenced their daily practice. Factors such as educational background and generational differences affected the level of familiarity with the NP role among healthcare providers, and how they perceived and interacted with them. One participant explained the following:

Most of the physician and other multidisciplinary team, they didn't really know that I exist. They didn't know that we have someone with a title or with the degree of an NP. (#15)

Another participant stated:

US board certified, the Canadian Board Certified ... it was [a] very easy transition with them because they know what NP means. They know that we are needed. (#10)

Another participant stated:

The new generation of physicians ... they're easier to accept the change and because we have a lot of different or new titles and professions and subspecialties is coming up ... they are more accepted, accepting, you know, the new professions, the new roles. (#15)

Moreover, the participants highlighted different perspectives regarding their experiences with nurses. Participants indicated that nurses were resistant to collaborate with NPs. RNs believed that because NPs were originally RNs, they need no help from another RN and are by able to do all the nursing tasks in addition to their advanced nursing role because of their training. One participant stated the following:

I've seen huge resistance among nurses. If a nurse is assigned to help me, they refuse because they say, 'She's a nurse. Why doesn't she do it?' Tasks such

as patient screening, taking vital signs, preparing patients, and carrying out my orders—whether it's medications, sick leave forms, lab tests, radiology requests, or follow-ups—are often dismissed with, 'She can do it. Why is she asking for help?' They believe I should also handle bed making, preparing the clinic, and calling patients. This creates a significant divide. (#16)

Conversely, some participants described positive interactions with nurses, emphasizing a sense of understanding and professional collaboration as one participant shared:

It's a very good relationship because, you know what? I always hear this: 'Since you are a nurse practicing a slightly more advanced role, you can understand us better than others.' (#11)

Facilitators of the NP role implementation

Participants highlighted several facilitators that could help overcome the challenges they identified while practicing as NPs in Saudi Arabia. Participants acknowledged that having a clear and a unified scope of practice was one such facilitators, with one participant explaining the following:

The Saudi commission or the regulatory bodies in Saudi Arabia did not come up yet with solid regulations or scope of practice. So, we had to do it in my institution from scratch ... so it's going to be unified. So, there will be no resistance and there will be no difference among all the departments. (#16)

Many participants indicated that having prior clinical experience was a key facilitator in practicing the NP role:

So, the more experience you have in your field, the more easy the school is for you. And the more experience you have, the more you know that you will be certain that this is the area that I want to practice as NP. So, it's really helping transition to practice. (#11)

In addition, participants emphasized the importance of structured clinical training in successfully implementing the NP role. Standardizing education, training programs, and advanced practice fellowships were seen as essential for strengthening the profession. One participant highlighted this need as follows:

Start to standardize everything, from academic programs to graduate training and fellowships. Even creating fellowship programs for our graduates would put us in a strong position to excel and fully

utilize advanced practice nursing in the best possible way. (#15)

Participants emphasized that fair pay and support across all levels were crucial for successfully integrating the NP role. Many highlighted the need for salary equity, recognition, and leadership engagement to ensure NPs feel valued and supported. One participant stressed:

So, be fair with the salaries ... awareness, please, please, we need more awareness ... We just want their support. We just want them to see what we are doing. We just want to feel they are proud of us. We want them to engage us. (#11)

Another participant confirmed:

Wherever the support, you will have a chance of opening NP positions. If you have good support, you will have a future for the NP role ... I know for a fact that if I didn't have the support that I had, I wouldn't be where I am now. (#19)

Future of the NPs role in Saudi Arabia

Participants described the future NPs in Saudi Arabia as promising and progressing toward the right direction as one participant stated:

It's very bright, it's very promising, and it's—it's getting there very slowly, but I can see that many organizations already request and hire NPs. (#16)

Another participant stated:

We're going through the same history of the nurse practitioner when it started in the early years in North America or in Europe. So, we're just going through the same path way and I think even we're going faster. (#15)

Participants highlighted the need for more NPs in the Saudi healthcare system:

Now we have physicians who are requesting to have nurse practitioner in that area and at clinics and their in-patient area ... they are requesting it as part of the requests from the hospital administration that we need four, or five, or six, or seven nurse practitioners in this area. (#15)

Discussion

The present study examined the lived experience of NPs working in Saudi Arabia. Our analysis revealed the following themes: “self-description as an NP”; “experiences

as NPs working in Saudi Arabia”; “experiences with patients, nurses, and physicians”; “facilitators of the NP role implementation”; and “future of the NP role in Saudi Arabia.”

Participants described themselves as specialized based on their experience or education, being board-certified, practicing independently, having a postgraduate degree, receiving advanced training, and practicing beyond the scope of RNs. This was consistent with previous research, in which clinical and academic nursing leaders in Saudi Arabia characterized APNs as specialized, independent in their practice, and equipped with advanced education and skills [3, 4]. In their recent review, Busca et al. [20] reported that APN described their role in terms of specializations and qualifications. The study participants' description of the NP role aligned with the description provided by the International Council for Nurses [18], suggesting a shared understanding of the professional identity and expectations of the NP role across different contexts.

Our study indicated that NPs faced several challenges in the Saudi healthcare system. The main challenge was the absence of a clearly defined scope of practice and professional title or classification for NPs. Consistent with previous studies, clinical and academic nursing leaders indicated that this lack of a regulatory and legislative role resulted in a lack of core competencies and job descriptions specifying tasks and responsibilities of NPs to enable safe and independent practice [4, 5, 7]. Consistent with previous reports, students in a recently developed APN program indicated that the lack of a professional title, role description, and career pathway for APNs in Saudi Arabia resulted in lack of interest in the APN role among nurses [10]. In addition, RNs practicing in Saudi Arabia indicated that they have low motivation to become NPs because of the lack of its professional classification and role ambiguity [9]. Moreover, owing to the lack of legislation governing NPs practice, healthcare institutions in Saudi Arabia were reluctant to implement their role because of medico-legal concerns. This finding was consistent with reports from local [4, 5] and international studies [1, 20–23], suggesting that this challenge is not unique to Saudi Arabia but rather reflects a systematic issue in healthcare systems where APN roles are evolving. Consequently, NPs in different healthcare settings had to develop organizational or context-specific job description, a scope of practice, credentialing requirements, and established collaborative agreements with physicians. Although this strategy was effective to catalyze early NP role implementation, such an inconsistent pattern further contributed to role ambiguity [24] and feelings of role fragility among NPs [21].

In addition, participants in our study viewed the lack of support from nursing administration as a major

challenge to implementing the NP role. In two recent studies, executive and academic nursing leaders in Saudi Arabia indicated that the support from nursing, medical, and hospital administration was essential to facilitate and sustain NPs' role implementation [4, 5]. Inadequate organizational support such as administrative assistance was viewed as a barrier limiting NPs' ability to practice independently [22] and contributed to job dissatisfaction and hindering professional growth [25–27].

Participants in our study indicated that inadequate pay was a major source of frustration. The lack of appropriate financial recognition for NPs leaves many NPs feeling dissatisfied and unable to extend their scope of practice [1, 3]. These findings mirror results from both local [4, 5] and global [25, 26] contexts.

Moreover, participants in our study indicated that limited awareness of the NP role among patients and other healthcare professionals hindered their ability to practice at their full potential. The lack of awareness of the NP role and the lack of a clear job description can result in confusion, conflicts, and apprehension among nurses and physicians which can limit collaboration and hinder NP role optimization [24]. These findings mirror results from both local [4, 5] and global studies [25, 26]. NPs practicing in Switzerland indicated that they spent a lot of time explaining their role to their colleagues in an attempt to clarify their role, minimized resistance, and enhanced collaboration [27].

Some participants reported that patients and their families in Saudi Arabia were unfamiliar with the NP role. Similarly, Schonenberger et al. [28] reported that patients in Swiss family practices initially lacked knowledge about the NP role. Also, APNs practicing in Australia indicated that they spent a lot of time educating patients about their role and convincing them to accept the care provided by APN [25, 26]. However, participants highlighted the role of trust and continuity of care in building strong relationships with patients and families to facilitate acceptance. Long-term interactions allow NPs to develop familiarity with their patients, leading to better communication and satisfaction [22].

The level of familiarity with NPs among physicians influenced the way they perceived their role. Physicians with a Western training background were familiar with NPs' role and, therefore, showed greater support for it compared to those who had non-Western training. Consistent with previous reports, executive and academic nursing leaders in Saudi Arabia indicated that because of their previous experience in North American healthcare systems, physicians were familiar with the NP role [4, 5]. In addition, participants indicated that the younger generation of physicians showed greater support for the NP role compared to older generations. In addition, the increasing demand in primary and chronic disease care

due to recent healthcare transformations made physicians more welcoming to the NP role [8].

Participants reported mixed experiences with nurses, and some indicated that nurses were resistant to collaborate. RNs believed that because NPs were originally RNs, they could perform all the nursing tasks in addition to their advanced nursing role. In their qualitative study, Cote et al. [21] and Ljungbeck et al. [27] identified a similar pattern, which resulted in NPs being caught between two professional roles, adding to the role ambiguity and work overload. Overall, previous studies indicated that acceptance of NPs' role among nurses was more challenging compared to physicians. Some of these challenges stemmed from generational differences or feelings of jealousy and threat. NPs practicing in Switzerland indicated that newly graduated RNs were generally more accepting of NPs, whereas experienced RNs displayed greater resistance during the transition [27]. By contrast, other participants noted supportive interactions with RNs that strengthened professional relationships.

Participants in our study called for a unified scope of practice and professional classification for NPs to drive the development of role-specific competencies, job descriptions specifying tasks and responsibilities, and collaboration agreements needed to enable safe and independent practice [4, 5, 9, 29].

Participants in our study confirmed that having prior clinical experience was essential to ensure a successful transition to the NP role. Similarly, executive and academic nursing leaders in Saudi Arabia indicated that admission requirements to APN programs should include a minimum of two years of bedside clinical experience [4, 5]. In addition, Strachan et al. [30] highlighted the necessity of prior clinical experience for NPs in the specialty area relevant to their program.

The participants also viewed standardizing education, training and fellowship programs as essential for ensuring effective, consistent, and safe implementation of the NP role. Similarly, executive and academic nursing leaders in Saudi Arabia indicated that APN curriculums should include a heavy and standardized clinical component [4, 5].

Fair pay was emphasized as a key facilitator in implementing the NP role. Previous studies underscored the role of adequate and fair financial compensation to implement the NP role [3, 4].

Our participants highlighted the role of nursing leaders in recognizing, acknowledging, and supporting NPs at all levels of the role implementation. Previous national and international studies ascertained that nursing leaders are in an ideal position to initiate and facilitate efforts to implement the NP role through its advocacy, influencing policy reform, establishing collaborative agreements

among departments, and ensuring effective governing of the NP role [4, 5, 22, 25–27].

Participants confirmed that a growing awareness of the NP role and acknowledgment of the value they contribute to healthcare reflected by physicians requesting more NPs in their teams. Almotairy et al. [8] reported that a substantial number of physicians supported NPs' role in Saudi Arabia and reported a high demand for NPs, especially in primary healthcare settings. Kerari et al. [9] reported that RNs showed positive perceptions about the NP role and acknowledged its contribution to patient care. Executive and academic nursing leaders in Saudi Arabia have been optimistic about the future of the NP role [4, 5].

Factors such as the healthcare transformation under Vision 2030 and the shift toward preventative and primary healthcare, increasing geriatric population, increasing prevalence of non-communicable diseases, and national initiatives to improve the quality and the quantity of nursing workforces were all viewed as opportunities to catalyze implementation of NPs' role [4, 5, 10].

To the best of our knowledge, this is the first study to examine the lived experiences of NPs in Saudi Arabia. Thus, this study provides valuable insights to guide ongoing efforts to implement the NP role. In addition, this study builds upon our previous efforts to support APN role implementation in Saudi Arabia by capturing the perspectives of stakeholders, including physicians [8], executive nursing leaders [4], academic nursing leaders [5], and nurses—including APNs [5]—as well as patients' experiences with APNs [2]. However, this study has a few limitations that must be addressed. First, the relatively small and purposively selected sample may not have fully captured the diversity of experiences among NPs. Nevertheless, our sample ensured representation from diverse healthcare settings in multiple cities in Saudi Arabia. Second, NPs have no formal classification in the current Saudi Commission for Health Specialties classification system, and a number of NP degree holders do not practice as NPs [31]. As such, allocating an NP degree holder who was actively practicing in an NP capacity was challenging. Therefore, we had to select participants based on self-identification and extend the data collection period. Third, some participants appeared hesitant to share information about their practice autonomy due to the lack of professional classification. This may have influenced the accuracy of the description of their lived experiences. However, participants were consistently assured that confidentiality and de-identification of the data were maintained throughout the study.

Implications

The findings of this study have important implications for policy, practice, education, and future research. The

persistent ambiguity surrounding the scope of practice and the absence of formal regulatory frameworks hinder the full utilization of NPs' expertise. There is a pressing need for national-level policy reform to establish clear guidelines and standardized job descriptions. Such measures would not only enhance role clarity and professional identity but also support the integration of NPs into the healthcare system, aligning with the strategic goals of the Saudi Vision 2030. Moreover, increasing NP autonomy through the establishment of independent NP-led clinics and the expansion of prescribing authority could significantly improve access to timely and efficient care. The evolving healthcare landscape in Saudi Arabia presents a timely opportunity to formally define and expand the NP role within national healthcare policy frameworks. While this study focuses on the lived experiences of NPs, these narratives have clear implications for healthcare outcomes. International literature consistently links NP practice to improved patient experience, care quality, and cost-effectiveness [1]. The challenges faced by NPs in Saudi Arabia, especially those related to unclear scope of practice and lack of policy support, may limit their potential to contribute similarly within the local healthcare system. Addressing these barriers could help optimize their impact on patient outcomes, system efficiency, and workforce sustainability.

The challenges identified in this study—including inadequate support, suboptimal compensation structures, and mixed interprofessional experiences—underscore the need for organizational changes. Healthcare institutions should work toward fostering an environment that supports interprofessional collaboration, enhances mutual understanding of roles, and promote the contributions of NPs to patient care. Initiatives such as targeted awareness campaigns and joint training sessions can improve the acceptance and effectiveness of the NP role.

The educational institutions must align NP curricula with both international standards and the unique needs of the Saudi healthcare landscape. Emphasizing advanced clinical skills, leadership, and interprofessional teamwork in educational programs will better prepare graduates to overcome practical challenges in the field. Furthermore, ongoing professional development and mentorship programs can ease the transition from RNs to NPs, thereby supporting long-term career growth.

Further studies are warranted to explore the broader ecosystem influencing NP practice in Saudi Arabia. In addition, NPs have the potential to lead public health initiatives and community awareness programs, contributing directly to improved population health outcomes. Studies that include the perspectives of other healthcare providers and stakeholders, as well as longitudinal studies assessing the impact of regulatory and educational

reforms, will be essential to fully understand and optimize the integration of the NP role.

Conclusion

This study explored the lived experiences of NPs working in Saudi Arabia and highlights the evolving nature of their roles. Participants demonstrated a consistent professional identity, grounded in advanced education and specialized training. However, their experiences were shaped by significant challenges resulting from regulatory ambiguities, inadequate organizational support, and unfair pay. Despite these challenges, the optimism surrounding the future of their role reflects a broader recognition of its potential to enhance patient care in the context of Saudi Vision 2030. To fully utilize the capabilities of NPs, establishing clear regulatory frameworks, ensuring fair compensation, and fostering interprofessional collaboration will be key to advancing the NP role in Saudi Arabia.

Abbreviations

APN	Advanced practice nursing
COREQ	Consolidated Criteria for Reporting Qualitative Research
NP	Nurse practitioner
RN	Registered nurse

Supplementary Information

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Supplementary Material 1

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Author contributions

Conceptualization and methodology, A.N., H.M., M.A., and A.A.; software, A.N., H.M., and M.A.; validation, A.N., H.M., M.A., A.A., S.A., and E.H.; formal analysis, A.N., H.M., M.A., and A.A.; investigation, A.N., H.M., and M.A.; data curation A.N. and H.M.; writing—original draft preparation, A.N., H.M., M.A., A.A., S.A., E.H. and T.A.; All authors have read and agreed to the published version of the manuscript.

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Data availability

The data that support the findings of this study are not openly available due to reasons of sensitivity and are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

Institutional review board approval was obtained from King Saud University College of Medicine (IRB Reference number: 22/0594/IRB). All methods were conducted in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines and the Declaration of Helsinki. Informed consent was obtained from all participants before participating in the study.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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References

1. Schober M, Lehwaldt D, Rogers M, Steinke M, Turale S, Pulcini J, et al. Guidelines on advanced practice [Internet]. Geneva: International Council of Nurses; 2020. https://www.icn.ch/system/files/documents/2020-04/ICN_APN%20Report_EN_WEB.pdf.
2. Almotairy MM, Nahari A, Moafa H, Alhamed A, Aboshaiqah AE, Alanazi SF, et al. Experiences of patients with heart failure with providers in Saudi Arabia. *J Nurse Pract.* 2024;20(9):105178. <https://doi.org/10.1016/j.nurpra.2024.105178>.
3. Unsworth J, Greene K, Ali P, Lillebø G, Mazilu DC. Advanced practice nurse roles in Europe: Implementation challenges, progress and lessons learnt. *Int Nurs Rev.* 2024;71(2):299–308. <https://doi.org/10.1111/inr.12800>.
4. Alhamed A, Almotairy MM, Nahari A, Moafa H, Aboshaiqah A, Alblowi F. Perspectives of executive nurse leaders on advanced practice nursing in Saudi Arabia: Challenges to be overcome and opportunities to be seized. *J Nurs Manag.* 2023;6620606. <https://doi.org/10.1155/2023/6620806>.
5. Moafa H, Almotairy MM, Nahari A, Alhamed A, Aboshaiqah AE, Hakamy E, et al. Lessons learned from Saudi nurse academic leaders about advanced practice nursing roles: A qualitative approach. *BMC Nurs.* 2025;24(1):224. <https://doi.org/10.1186/s12912-025-02871-x>.
6. Nahari A, Alhamed A, Moafa H, Aboshaiqah A, Almotairy M. Role delineation of advanced practice nursing: A cross-sectional study. *J Adv Nurs.* 2024;80(1):366–76. <https://doi.org/10.1111/jan.15797>.
7. Tubaishat A, Habiballah L, Aljohani K, Aljohani MS. The nurse practitioner in Saudi Arabia: Potentials and threats. *J Nurse Pract.* 2022;18(1):121–2. <https://doi.org/10.1016/j.nurpra.2021.10.017>.
8. Almotairy M, Nahari A, Alhamed A, Aboshaiqah A, Moafa H. Physicians' perception about primary care nurse practitioners in Saudi Arabia. *J Nurse Pract.* 2022;18(7):747–52. <https://doi.org/10.1016/j.nurpra.2022.04.020>.
9. Kerari A, Bahari G, Aldossery N, Qadhi O, Alghamdi A. A mixed-methods sequential explanatory study of the factors that impact nurses' perspectives toward nurse practitioners' roles in Saudi Arabia. *Healthcare.* 2023;11(1):146. <https://doi.org/10.3390/healthcare11010146>.
10. Aljohani KAS. Saudi nurses' competency learnings and experiences from the newly developed advanced nursing practice diploma program in Saudi Arabia: A phenomenological study. *Cureus.* 2020;12(4):e7584. <https://doi.org/10.7759/cureus.7584>.
11. Almotairy MM, Nahari A, Moafa H, Hakamy E, Alhamed A. Development of advanced practice nursing core competencies in Saudi Arabia: A modified Delphi study. *Nurse Educ Today.* 2024;141:106315. <https://doi.org/10.1016/j.nedt.2024.106315>.

12. Li Y, Wang C, Tan W, Jiang Y. The transition to advanced practice nursing: A systematic review of qualitative studies. *Int J Nurs Stud*. 2023;144:104525. <https://doi.org/10.1016/j.jnurstu.2023.104525>.
13. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349–57. <https://doi.org/10.1093/intqhc/mzm042>.
14. Donelan K, DesRoches CM, Dittus RS, Buerhaus P. Perspectives of physicians and nurse practitioners on primary care practice. *N Engl J Med*. 2013;368(20):1898–906. <https://doi.org/10.1056/NEJMsa1212938>.
15. Holly C, Salmond S, Saimbert M, editors. Comprehensive systematic review for advanced practice nursing. 3rd ed. New York: Springer Publishing; 2021.
16. Almukhaini S, Martin-Misener R, Weeks LE, Macdonald M, Hussain H, Macdonald D, et al. Advanced practice nursing roles in Arab countries in the Eastern mediterranean region: A scoping review. *JBI Evid Synth*. 2022;19(4):891–8. <https://doi.org/10.1111/jbies-21-00101>.
17. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006;18(1):59–82. <https://doi.org/10.1177/1525822X05279903>.
18. IBM Corp. IBM SPSS statistics for windows, version 29.0. Armonk, NY: IBM Corp; 2021.
19. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101. <https://doi.org/10.1191/1478088706qp063oa>.
20. Busca E, Savatter A, Calafato TL, Mazzoleni B, Barisone M, Dal Molin A. Barriers and facilitators to the implementation of Nurse's role in primary care settings: an integrative review. *BMC Nurs*. 2021;20(1):171. <https://doi.org/10.1186/s12912-021-00696-y>.
21. Cote N, Freeman A, Jean E, Denis JL. New Understanding of primary health care nurse practitioner role optimization: The dynamic relationship between the context and work meaning. *BMC Health Serv Res*. 2019;19(1):882. <https://doi.org/10.1186/s12913-019-4731-8>.
22. Dong Z, Wei L, Sun X, Xiang J, Hu Y, Lin M, et al. Experiences of nurses working in nurse-led clinics in traditional Chinese medicine hospitals: A focused ethnographic study. *Nurs Open*. 2023;10(2):603–12. <https://doi.org/10.1002/nop2.1326>.
23. Jean E, Sevilla Guerra S, Contandriopoulos D, Perroux M, Kilpatrick K, Zabalegui A. Context and implementation of advanced nursing practice in two countries: An exploratory qualitative comparative study. *Nurs Outlook*. 2019;67(4):365–80. <https://doi.org/10.1016/j.outlook.2019.02.002>.
24. Torrens C, Campbell P, Hoskins G, Strachan H, Wells M, Cunningham M, et al. Barriers and facilitators to the implementation of the advanced nurse practitioner role in primary care settings: A scoping review. *Int J Nurs Stud*. 2020;104:103443. <https://doi.org/10.1016/j.jnurstu.2019.103443>.
25. Pu X, Malik G, Murray C. Running nurse-led clinics: A qualitative descriptive study of advanced practice nurses' experiences and perceptions. *Aust J Adv Nurs*. 2024;41(3):6–17. <https://doi.org/10.37464/2024.413.1200>.
26. Pu X, Malik G, Murray C. Nurses' experiences and perceptions of running nurse-led clinics: A scoping review. *Int J Nurs Pract*. 2024;30(6):e13285. <https://doi.org/10.1111/ijn.13285>.
27. Ljungbeck B, Carlson E, Sjögren Forss K. Nurse practitioners' experiences of transitioning to and working in the pioneering nursing role: An interview study. *J Adv Nurs*. 2024. <https://doi.org/10.1111/jan.16560>.
28. Schonenberger N, Sottas B, Merlo C, Essig S, Gysin S. Patients' experiences with the advanced practice nurse role in Swiss family practices: A qualitative study. *BMC Nurs*. 2020;19:90. <https://doi.org/10.1186/s12912-020-00482-2>.
29. Hibbert D, Aboshaiqah AE, Sienko KA, Forestell D, Harb AW, Yousuf SA, et al. Advancing nursing practice: The emergence of the role of advanced practice nurse in Saudi Arabia. *Ann Saudi Med*. 2017;37(1):72–8. <https://doi.org/10.514/0256-4947.2017.72>.
30. Strachan H, Hoskins G, Wells M, Maxwell M. A realist evaluation case study of the implementation of advanced nurse practitioner roles in primary care in Scotland. *J Adv Nurs*. 2022;78(9):2916–32. <https://doi.org/10.1111/jan.15252>.
31. Saudi Commission for Health Specialties. Guidelines of professional classification and registration for health practitioners. Riyadh: SCFHS; 2021. <https://scfhs.org.sa/en/professional-classification-requirements>.

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