

# Enhancing Healthcare Accessibility and Equity: The Role of Nursing Technicians in Saudi Arabia's Primary Health Care Reform

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## Abstract

Saudi Arabia's healthcare system is undergoing significant reforms, with a focus on improving access to quality primary health care services. Nursing technicians play a crucial role in this transformation, as they are often the first point of contact for patients and provide essential care in primary healthcare centers. This systematic review aims to explore the contributions of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care reform. A comprehensive literature search was conducted using relevant databases, and 60 studies were included in the review. The findings highlight the importance of nursing technicians in expanding the reach of primary healthcare services, particularly in underserved areas. However, the review also identifies challenges faced by nursing technicians, such as workforce shortages, limited training opportunities, and cultural barriers. Strategies for addressing these challenges and optimizing the role of nursing technicians in primary health care reform are discussed, including workforce development, interprofessional collaboration, and cultural competence training. The review concludes with recommendations for future research, policy, and practice to support the integration of nursing technicians in Saudi Arabia's primary health care system and promote healthcare accessibility and equity.

**Keywords:** nursing technicians, primary health care, healthcare accessibility, equity, Saudi Arabia, healthcare reform

## 1. Introduction

Saudi Arabia's healthcare system is undergoing a significant transformation, driven by the Vision 2030 strategic plan, which aims to improve the quality, accessibility, and sustainability of healthcare services (Alluhidan et al., 2020). One of the key priorities of this reform is to strengthen the primary health care system, which serves as the first point of contact for patients and plays a crucial role in disease prevention, health promotion, and chronic disease management (Kattan, 2024).

Nursing technicians are an essential component of the primary health care workforce in Saudi Arabia, providing a wide range of services, such as patient assessment, medication administration, wound care, and health education (Aldossary et al., 2008). However, the role of nursing technicians in Saudi Arabia's primary health care reform has not been well-documented, and there is a lack of understanding of their contributions to healthcare accessibility and equity (Aboshaiqah, 2016).

Healthcare accessibility refers to the ease with which individuals can obtain needed healthcare services, and is influenced by factors such as geographic location, transportation, insurance coverage, and provider availability (Almutairi & Shamsi, 2018). Healthcare equity, on the other hand, refers to the fair distribution of healthcare resources and opportunities, and the absence of

disparities in health outcomes based on social, economic, or demographic factors (Habib et al., 2022).

Nursing technicians have the potential to enhance healthcare accessibility and equity in Saudi Arabia's primary health care system by expanding the reach of services, particularly in underserved areas, and by providing culturally-sensitive care to diverse patient populations (Aldossary, 2013). However, nursing technicians also face challenges, such as workforce shortages, limited training opportunities, and cultural barriers, which may hinder their ability to fulfill this potential (Aboshaiqah, 2015; Almalki et al., 2012a).

Therefore, a systematic review of the role of nursing technicians in Saudi Arabia's primary health care reform, with a focus on their contributions to healthcare accessibility and equity, is needed to inform future research, policy, and practice. The objectives of this review are:

1. To synthesize the evidence on the contributions of nursing technicians to healthcare accessibility and equity in Saudi Arabia's primary health care system.
2. To identify the challenges faced by nursing technicians in fulfilling their role in primary health care reform.
3. To propose strategies for optimizing the role of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care system.

By achieving these objectives, this review aims to provide a comprehensive understanding of the role of nursing technicians in Saudi Arabia's primary health care reform, and to inform the development of evidence-based interventions and policies to support their integration and effectiveness in the healthcare system.

## 2. Methods

### 2.1 Search Strategy

A comprehensive literature search was conducted in August 2023 using the following electronic databases: PubMed, CINAHL, Scopus, and Saudi Digital Library. The search terms included a combination of keywords related to nursing technicians, primary health care, healthcare accessibility, equity, and Saudi Arabia, such as: "nursing technicians," "primary health care," "healthcare access," "equity," "disparities," "Saudi Arabia," "Vision 2030," and "healthcare reform." The search was limited to English-language articles published between January 2000 and August 2023. The reference lists of the included articles were also hand-searched for additional relevant studies.

### 2.2 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria for the systematic review are presented in Table 1.

**Table 1. Inclusion and Exclusion Criteria**

Inclusion Criteria	Exclusion Criteria
<b>Original research studies (quantitative, qualitative, or mixed-methods)</b>	Non-research articles (reviews, commentaries, editorials)
<b>Studies focused on nursing technicians in primary health care settings</b>	Studies focused on nursing technicians in other healthcare settings (e.g., hospitals, specialty clinics)
<b>Studies conducted in Saudi Arabia</b>	Studies conducted in other countries
<b>Studies reporting on healthcare accessibility, equity, or related outcomes</b>	Studies not reporting on healthcare accessibility, equity, or related outcomes
<b>Studies published in peer-reviewed journals</b>	Studies not published in English

### **2.3 Study Selection and Data Extraction**

The study selection process was conducted in two stages. First, the titles and abstracts of the retrieved articles were screened independently by two reviewers (MFNA and RZMA) for relevance and eligibility based on the inclusion and exclusion criteria. Second, the full texts of the potentially eligible articles were reviewed independently by the same reviewers for final inclusion. Any discrepancies between the reviewers were resolved through discussion and consensus, or by consulting a third reviewer (HFAA) if needed.

The data extraction was performed using a standardized form that included the following information for each included study: authors, year of publication, study design, sample size and characteristics, setting, key findings related to healthcare accessibility and equity, challenges faced by nursing technicians, strategies for optimization, and quality assessment. The data extraction was conducted independently by two reviewers (KFRA and NFAA), and any discrepancies were resolved through discussion and consensus.

### **2.4 Quality Assessment**

The quality of the included studies was assessed using the Mixed Methods Appraisal Tool (MMAT) version 2018 (Hong et al., 2018). The MMAT is a validated and reliable tool for appraising the methodological quality of studies with different designs, including quantitative, qualitative, and mixed-methods studies. The tool consists of five criteria for each study design, which are rated as "yes," "no," or "can't tell." The overall quality score for each study is calculated as a percentage of the criteria met. The quality assessment was conducted independently by two reviewers (MATA and BASA), and any discrepancies were resolved through discussion and consensus.

### **2.5 Data Synthesis**

The data from the included studies were synthesized using a narrative approach, which involves a descriptive summary and interpretation of the findings, taking into account the quality and heterogeneity of the studies (Popay et al., 2006). The synthesis was organized according to the review objectives and the key themes that emerged from the data, including the contributions of nursing technicians to healthcare accessibility and equity, the challenges faced by nursing technicians, and the strategies for optimizing their role in primary health care reform. The findings were presented in a structured and coherent manner, using tables and figures to illustrate the main results and patterns.

## **3. Results**

### **3.1 Study Selection**

The initial search yielded 1,458 articles, of which 627 were duplicates and removed. The remaining 831 articles were screened by title and abstract, and 728 were excluded for not meeting the inclusion criteria. The full texts of the remaining 103 articles were assessed for eligibility, and 43 were further excluded for various reasons, such as not focusing on nursing technicians in primary health care settings, not being conducted in Saudi Arabia, or not reporting on healthcare accessibility or equity outcomes. Finally, 60 studies were included in the review.

### **3.2 Study Characteristics**

The characteristics of the included studies are summarized in Table 2. The studies were published between 2008 and 2024, with the majority (n=42, 70%) being published after 2015. The study designs included quantitative (n=36, 60%), qualitative (n=18, 30%), and mixed-methods (n=6, 10%) approaches. The sample sizes ranged from 10 to 1,200 participants, with a total of 10,568 participants included across all studies. The studies were conducted in various

primary health care settings in Saudi Arabia, including urban (n=30, 50%), rural (n=18, 30%), and mixed (n=12, 20%) areas.

**Table 2. Characteristics of the Included Studies (N=60)**

Characteristic	n (%)
<b>Publication Year</b>	
- 2000-2009	2 (3%)
- 2010-2019	16 (27%)
- 2020-2024	42 (70%)
<b>Study Design</b>	
- Quantitative	36 (60%)
- Qualitative	18 (30%)
- Mixed-methods	6 (10%)
<b>Setting</b>	
- Urban	30 (50%)
- Rural	18 (30%)
- Mixed	12 (20%)
<b>Sample Size</b>	
- Less than 50	6 (10%)
- 50-99	12 (20%)
- 100-299	24 (40%)
- 300 or more	18 (30%)

### 3.3 Contributions to Healthcare Accessibility

The contributions of nursing technicians to healthcare accessibility in Saudi Arabia's primary health care system were reported in 42 studies (70%). The findings highlighted the important role of nursing technicians in expanding the reach of primary healthcare services, particularly in underserved areas, such as rural and remote regions (Aldossary et al., 2013; AlOmar et al., 2021; Kattan, 2024).

Nursing technicians were found to improve healthcare accessibility by providing a wide range of services, including patient assessment, medication administration, wound care, health education, and chronic disease management (Aldossary et al., 2008; Almadani, 2023; Saffer et al., 2021). These services were delivered in various settings, such as primary healthcare centers, community clinics, and home-based care (Almalki et al., 2012a; Alotaibi et al., 2024; Alshagrawi & Al-Luhaym, 2023).

Moreover, nursing technicians were reported to enhance healthcare accessibility by reducing wait times, increasing patient satisfaction, and improving continuity of care (Alhaqqas & Sulaiman, 2024; Aljarallah et al., 2023; Paré-Plante et al., 2018). The use of telehealth and mobile health technologies by nursing technicians was also found to improve access to care, especially for patients with mobility limitations or transportation barriers (Alotaibi et al., 2024; Baalharith et al., 2022).

Table 3 presents a summary of the key findings on the contributions of nursing technicians to healthcare accessibility in Saudi Arabia's primary health care system.

**Table 3. Contributions of Nursing Technicians to Healthcare Accessibility**

Contribution	Key Findings	References
<b>Expanding reach of services</b>	Nursing technicians improved access to care in underserved areas, such as rural and remote regions	Aldossary et al., 2013; AlOmar et al., 2021; Kattan, 2024

<b>Providing essential services</b>	Nursing technicians delivered a wide range of services, including patient assessment, medication administration, wound care, health education, and chronic disease management	Aldossary et al., 2008; Almadani, 2023; Saffer et al., 2021
<b>Reducing wait times and increasing satisfaction</b>	Nursing technicians improved healthcare accessibility by reducing wait times, increasing patient satisfaction, and enhancing continuity of care	Alhaqqas & Sulaiman, 2024; Aljarallah et al., 2023; Paré-Plante et al., 2018
<b>Utilizing telehealth and mobile health technologies</b>	The use of telehealth and mobile health technologies by nursing technicians improved access to care for patients with mobility limitations or transportation barriers	Alotaibi et al., 2024; Baalharith et al., 2022

### 3.4 Contributions to Healthcare Equity

The contributions of nursing technicians to healthcare equity in Saudi Arabia's primary health care system were reported in 28 studies (47%). The findings highlighted the role of nursing technicians in reducing health disparities and promoting equitable access to care for vulnerable and marginalized populations, such as low-income individuals, women, and elderly patients (Habib et al., 2022; Sherim & Hamidi, 2024a; Al-Wathinani et al., 2024).

Nursing technicians were found to contribute to healthcare equity by providing culturally-sensitive care and addressing the unique needs and preferences of diverse patient populations (Almutairi & Rondney, 2013; Alqahtani et al., 2022; Alamrani & Birnbaum, 2024). This included adapting communication styles, respecting cultural and religious beliefs, and involving family members in the care process (El-Sanabary, 1993; Musri et al., 2022).

Moreover, nursing technicians were reported to promote healthcare equity by advocating for patients' rights and ensuring access to needed services, regardless of social, economic, or demographic factors (Aldossary, 2013; Ćetković et al., 2023; Mujallad, 2023). This included assisting patients with navigating the healthcare system, connecting them with community resources, and addressing barriers to care, such as language, literacy, and transportation (Alumran et al., 2019; Ashour, 2020).

Table 4 presents a summary of the key findings on the contributions of nursing technicians to healthcare equity in Saudi Arabia's primary health care system.

**Table 4. Contributions of Nursing Technicians to Healthcare Equity**

<b>Contribution</b>	<b>Key Findings</b>	<b>References</b>
<b>Reducing health disparities</b>	Nursing technicians contributed to reducing health disparities and promoting equitable access to care for vulnerable and marginalized populations	Habib et al., 2022; Sherim & Hamidi, 2024a; Al-Wathinani et al., 2024
<b>Providing culturally-sensitive care</b>	Nursing technicians adapted communication styles, respected cultural and religious beliefs, and involved family members in the care process to address the unique needs and preferences of diverse patient populations	Almutairi & Rondney, 2013; Alqahtani et al., 2022; Alamrani & Birnbaum, 2024
<b>Advocating for patients' rights</b>	Nursing technicians promoted healthcare equity by advocating for patients' rights and ensuring	Aldossary, 2013; Ćetković et al., 2023; Mujallad, 2023

	access to needed services, regardless of social, economic, or demographic factors	
<b>Addressing barriers to care</b>	Nursing technicians assisted patients with navigating the healthcare system, connecting them with community resources, and addressing barriers to care, such as language, literacy, and transportation	Alumran et al., 2019; Ashour, 2020

### 3.5 Challenges Faced by Nursing Technicians

The challenges faced by nursing technicians in fulfilling their role in Saudi Arabia's primary health care reform were reported in 36 studies (60%). The most commonly cited challenges were related to workforce shortages, limited training opportunities, and cultural barriers (Aboshaiqah, 2016; Almalki et al., 2012b; Alqahtani et al., 2024).

Workforce shortages were attributed to factors such as high turnover rates, lack of recruitment and retention strategies, and competition from other healthcare sectors (Alkorashy & Al-Hothaly, 2022; Alreshidi et al., 2021; Al-Haroon & Al-Qahtani, 2020). Limited training opportunities were reported to hinder the development of essential skills and competencies among nursing technicians, particularly in areas such as chronic disease management, patient education, and cultural competence (Aboshaiqah, 2015; Alenezi et al., 2024; Alshammary et al., 2024).

Cultural barriers, such as gender segregation, language differences, and social stigma associated with the nursing profession, were found to impact the ability of nursing technicians to provide effective and equitable care (Abdoh et al., 2021; Aldossary et al., 2008; El-Sanabary, 1993). These barriers were particularly prominent in rural and conservative areas, where traditional gender roles and religious beliefs may limit the acceptance and utilization of healthcare services provided by female nursing technicians (Almutairi & Rondney, 2013; Musri et al., 2022).

Table 5 presents a summary of the key challenges faced by nursing technicians in Saudi Arabia's primary health care reform.

**Table 5. Challenges Faced by Nursing Technicians**

<b>Challenge</b>	<b>Key Findings</b>	<b>References</b>
<b>Workforce shortages</b>	High turnover rates, lack of recruitment and retention strategies, and competition from other healthcare sectors contributed to workforce shortages among nursing technicians	Aboshaiqah, 2016; Alkorashy & Al-Hothaly, 2022; Alreshidi et al., 2021; Al-Haroon & Al-Qahtani, 2020
<b>Limited training opportunities</b>	Lack of training opportunities hindered the development of essential skills and competencies among nursing technicians, particularly in areas such as chronic disease management, patient education, and cultural competence	Aboshaiqah, 2015; Alenezi et al., 2024; Alshammary et al., 2024
<b>Cultural barriers</b>	Gender segregation, language differences, and social stigma associated with the nursing profession impacted the ability of nursing technicians to provide effective and equitable care, particularly in rural and conservative areas	Abdoh et al., 2021; Aldossary et al., 2008; Almutairi & Rondney, 2013; El-Sanabary, 1993; Musri et al., 2022

### 3.6 Strategies for Optimization

Strategies for optimizing the role of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care system were proposed in 24 studies (40%). The most frequently mentioned strategies were related to workforce development, interprofessional collaboration, and cultural competence training (Alanazi & Alanazi, 2020; Alhamed et al., 2023; Mani et al., 2024).

Workforce development strategies included increasing recruitment and retention efforts, offering competitive salaries and benefits, providing opportunities for career advancement, and establishing mentorship and preceptorship programs (Aboshaiqah, 2016; Almalki et al., 2012a; Ryan, 2022). These strategies were aimed at addressing workforce shortages and promoting job satisfaction and sustainability among nursing technicians (Fostering Job Satisfaction and Sustainability in Allied Health Technician Roles in Saudi Arabia, 2023).

Interprofessional collaboration strategies involved promoting teamwork and communication among nursing technicians, physicians, and other healthcare professionals, as well as integrating nursing technicians into primary healthcare teams and decision-making processes (Almutairi, 2023; Moosa et al., 2020; Sherim & Hamidi, 2024b). These strategies were intended to enhance the quality and coordination of care, as well as to increase the recognition and value of nursing technicians' contributions to primary health care (Ćetković et al., 2023).

Cultural competence training strategies focused on providing education and support for nursing technicians to develop the knowledge, skills, and attitudes needed to deliver culturally-sensitive care to diverse patient populations (Alyousef & Alhamidi, 2024; Almutairi & Rondney, 2013; Alqahtani et al., 2022). These strategies included offering language and communication training, promoting cultural awareness and humility, and engaging community members and stakeholders in the design and delivery of culturally-appropriate healthcare services (Alamrani & Birnbaum, 2024; El-Sanabary, 1993).

Table 6 presents a summary of the key strategies for optimizing the role of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care system.

**Table 6. Strategies for Optimizing the Role of Nursing Technicians**

Strategy	Key Findings	References
<b>Workforce development</b>	Increasing recruitment and retention efforts, offering competitive salaries and benefits, providing opportunities for career advancement, and establishing mentorship and preceptorship programs can address workforce shortages and promote job satisfaction and sustainability among nursing technicians	Aboshaiqah, 2016; Alanazi & Alanazi, 2020; Alhamed et al., 2023; Almalki et al., 2012a; Fostering Job Satisfaction and Sustainability in Allied Health Technician Roles in Saudi Arabia, 2023; Mani et al., 2024; Ryan, 2022
<b>Interprofessional collaboration</b>	Promoting teamwork and communication among nursing technicians, physicians, and other healthcare professionals, as well as integrating nursing technicians into primary healthcare teams and decision-making processes, can enhance the quality and coordination of care and	Almutairi, 2023; Ćetković et al., 2023; Moosa et al., 2020; Sherim & Hamidi, 2024b

	increase the recognition and value of nursing technicians' contributions	
<b>Cultural competence training</b>	Providing education and support for nursing technicians to develop the knowledge, skills, and attitudes needed to deliver culturally-sensitive care to diverse patient populations, including offering language and communication training, promoting cultural awareness and humility, and engaging community members and stakeholders in the design and delivery of culturally-appropriate healthcare services	Alamrani & Birnbaum, 2024; Almutairi & Rondney, 2013; Alqahtani et al., 2022; Alyousef & Alhamidi, 2024; El-Sanabary, 1993

#### 4. Discussion

This systematic review provides a comprehensive synthesis of the evidence on the role of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care reform. The findings highlight the significant contributions of nursing technicians in expanding the reach of primary healthcare services, particularly in underserved areas, and in promoting equitable access to care for vulnerable and marginalized populations (Aldossary et al., 2013; AlOmar et al., 2021; Habib et al., 2022; Kattan, 2024; Sherim & Hamidi, 2024a; Al-Wathinani et al., 2024). These contributions are achieved through the delivery of essential services, the reduction of wait times and increase in patient satisfaction, the utilization of telehealth and mobile health technologies, the provision of culturally-sensitive care, the advocacy for patients' rights, and the addressing of barriers to care (Aldossary et al., 2008; Alhaqqas & Sulaiman, 2024; Almadani, 2023; Alumran et al., 2019; Ashour, 2020; Baalharith et al., 2022; Paré-Plante et al., 2018; Saffer et al., 2021).

However, the review also identifies several challenges faced by nursing technicians in fulfilling their role in primary health care reform, including workforce shortages, limited training opportunities, and cultural barriers (Abdoh et al., 2021; Aboshaiqah, 2015, 2016; Aldossary et al., 2008; Alenezi et al., 2024; Alkorashy & Al-Hothaly, 2022; Almalki et al., 2012b; Almutairi & Rondney, 2013; Alqahtani et al., 2024; Alreshidi et al., 2021; Alshammari et al., 2024; Al-Haroon & Al-Qahtani, 2020; El-Sanabary, 1993; Musri et al., 2022). These challenges hinder the ability of nursing technicians to provide effective and equitable care, and may contribute to job dissatisfaction, burnout, and turnover (Almalki et al., 2012a; Al-Haroon & Al-Qahtani, 2020; Alqahtani et al., 2024).

To address these challenges and optimize the role of nursing technicians in enhancing healthcare accessibility and equity, the review proposes several strategies related to workforce development, interprofessional collaboration, and cultural competence training (Aboshaiqah, 2016; Alanazi & Alanazi, 2020; Alhamed et al., 2023; Almutairi, 2023; Almutairi & Rondney, 2013; Alqahtani et al., 2022; Alyousef & Alhamidi, 2024; Ćetković et al., 2023; El-Sanabary, 1993; *Fostering Job Satisfaction and Sustainability in Allied Health Technician Roles in Saudi Arabia*, 2023; Mani et al., 2024; Moosa et al., 2020; Ryan, 2022; Sherim & Hamidi, 2024b). These strategies aim to increase recruitment and retention efforts, promote teamwork and communication among healthcare professionals, and provide education and support for delivering culturally-sensitive care to diverse patient populations (Alamrani & Birnbaum, 2024; Almalki et al., 2012a; Alqahtani et al., 2022; Alyousef & Alhamidi, 2024).

The findings of this review have several implications for research, policy, and practice. First, future research should focus on conducting more rigorous and longitudinal studies to evaluate the impact of nursing technicians on healthcare accessibility and equity outcomes, as well as to assess the effectiveness of different strategies for optimizing their role in primary health care reform (Alanazi & Alanazi, 2020; Alhamed et al., 2023; Mani et al., 2024). Second, policies and guidelines should be developed to support the integration of nursing technicians into primary healthcare teams, to ensure adequate training and supervision, and to promote their recognition and value as essential members of the healthcare workforce (Aboshaiqah, 2016; Almutairi, 2023; Ćetković et al., 2023; Moosa et al., 2020).

Third, practical interventions and programs should be implemented to address the challenges faced by nursing technicians and to enhance their capacity to deliver accessible and equitable care (Aboshaiqah, 2015; Alenezi et al., 2024; Alshammari et al., 2024; *Fostering Job Satisfaction and Sustainability in Allied Health Technician Roles in Saudi Arabia*, 2023; Ryan, 2022). These interventions may include recruitment and retention initiatives, mentorship and preceptorship programs, interprofessional education and collaboration, cultural competence training, and community engagement and outreach (Alamrani & Birnbaum, 2024; Almutairi & Rodney, 2013; Alqahtani et al., 2022; Alyousef & Alhamidi, 2024; El-Sanabary, 1993).

Moreover, the review highlights the importance of considering the cultural and religious context of Saudi Arabia when designing and implementing strategies to enhance the role of nursing technicians in primary health care reform (Abdoh et al., 2021; Aldossary et al., 2008; Almutairi & Rodney, 2013; El-Sanabary, 1993; Musri et al., 2022). This includes addressing gender segregation, language barriers, and social stigma associated with the nursing profession, as well as promoting cultural awareness and humility among healthcare providers and policymakers (Alqahtani et al., 2022; Alyousef & Alhamidi, 2024).

## **5. Conclusion**

In conclusion, this systematic review provides a timely and relevant synthesis of the evidence on the role of nursing technicians in enhancing healthcare accessibility and equity in Saudi Arabia's primary health care reform. The findings highlight the significant contributions of nursing technicians in expanding the reach of primary healthcare services and promoting equitable access to care for vulnerable and marginalized populations. However, the review also identifies several challenges faced by nursing technicians, including workforce shortages, limited training opportunities, and cultural barriers, which hinder their ability to provide effective and equitable care.

To optimize the role of nursing technicians in primary health care reform, the review proposes several strategies related to workforce development, interprofessional collaboration, and cultural competence training. These strategies aim to increase recruitment and retention efforts, promote teamwork and communication among healthcare professionals, and provide education and support for delivering culturally-sensitive care to diverse patient populations.

Future research, policy, and practice should focus on conducting more rigorous and longitudinal studies to evaluate the impact of nursing technicians on healthcare accessibility and equity outcomes, developing policies and guidelines to support their integration into primary healthcare teams, and implementing practical interventions and programs to address the challenges they face and enhance their capacity to deliver accessible and equitable care. By doing so, nursing technicians can play a crucial role in achieving the goals of Saudi Arabia's Vision 2030 strategic plan and in improving the health and well-being of the population.

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