



# The Future of the Saudi Nursing Profession after New Regulations in the Era of Health Transformation: A Systematic Review

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## Abstract

**Background:** The healthcare sector in Saudi Arabia is embarking on transformational change as part of Vision 2030, with nursing education and workforce development identifying as particular targets of transformation. Progress is still impaired, however, by workforce shortages, educational limitations, and regional gaps in healthcare. These challenges require an assessment of nursing education, policy, and strategies to successfully implement the reform of the health system.

**Aim:** The purpose of this study is to investigate the effects of Vision 2030 on nursing education and workforce development in Saudi Arabia, and to discover the challenges and opportunities for nurses in meeting the objectives of the national health care plan.

**Method:** This review of selected studies (policy analyses, literature reviews, and surveys of health workforce doctors) evaluates the degree of congruency of nursing practice with Vision 2030 reforms. Essential themes and trends were identified regarding the changing role of nursing in the Saudi health transformation.

**Results:** These research results present challenges in nursing education, workforce expansion and access to care regionally. Nonetheless, transformative learning strategies, changes in policies and practices, and alternative employment models such as the gig and collaboration economy have the potential to close the sustainability gap between workforce shortages and educational outcomes. Further, it recognized the necessity to continually adapt nursing strategies to the ambitious targets of Vision 2030."

**Conclusion:** Although there have been improvements in nursing education and the nursing workforce, challenges remain<sup>24</sup> and efforts continue to engage the profession at all levels to promote workforce diversity. The study highlights the need for tailored policy, education and workforce planning to facilitate the alignment of nursing and healthcare with Vision 2030 strategies.

**Keywords:** Saudi Arabia, Vision 2030, nursing education, workforce development, healthcare transformation, gig economy, policy reform, transformative learning

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## Introduction

The healthcare system in Saudi Arabia is undergoing a transformation fueled by a national agenda called the Vision 2030, which revolves around quality of healthcare at its core (Alkorashy & Al-Hothaly, 2022). The vision is to create a holistic, patient-centric system that is accessible and high quality. At the heart of this transformation are reforms and policies to promote healthcare providers, including the nursing workforce, which comprises a major share of the nation health workforce (Alkhamis et al., 2021). The current dynamics of nursing in Saudi Arabia has stemmed from regulatory reform to re-establish nursing benchmarks, to enhance performance capabilities and to respond to the increasing needs of a more complex healthcare environment (Althumairi et al., 2023).

In recent years, the regulatory landscape has evolved to enable Saudi Arabia to realize its healthcare modernization goals. With new policies, the focus is on stricter licensure, continuous education and compliance to global standards, to improve the quality delivery of nursing services (Sajjad & Qureshi, 2020). As a consequence of these changes, nursing competencies have been re-evaluated so that there are now expectations that nurses will develop advanced clinical skills, an evidence based practice and lifelong learning (Al-Dosari et al., 2023). This sparked new standards for nursing education and programs are now geared towards preparing nurses to adapt to new, more dynamic clinical roles (Alhazmi, 2021; Al-Kubaisi et al., 2023; Alfayez et al., 2023; Jradi et al., 2023).

At the same time, the healthcare environment in Saudi Arabia is undergoing a paradigm shift, with patients today having higher expectations and more complex healthcare needs (Alqahtani, 2024). As the population ages quickly and chronic illnesses are on the rise, the need for skilled nursing care has never been greater. New laws are being introduced in response to this urgent situation, granting greater attention to quality care, nurse-patient ratios, and advanced service accessibility (Alsofayan et al., 2021; Noshili et al., 2022; Alghamdi et al., 2024). These goals are changing the role of nurses, redefining their position as global leaders responsible for patient care and clinical decision-making (Almalki, 2021; Matmi et al., 2023; Alqahtani 2024). As a result, nurses need more than technical knowledge; nurses need the ability to adapt to different patient populations and to changes in health care needs that can happen in a matter of days or weeks (Alqahtani et al., 2022; Uraif, 2024).

The role of nurses in Saudi Arabia is also expanding, going beyond bedside care. The health transformation agenda envisions nurses working at a leadership level, exercising influence, contributing to policy formulation and actively involvement in health systems quality improvement (Alqahtani et al., 2023). Recent policy trends have promoted the active involvement of nurses in patient care pathways, leading multidisciplinary teams, and bridging different care settings. This broadening of responsibilities aims to make better use of our healthcare workforce nurses, who are crucial in mitigating patient loads on physicians while improving delivery of needed services (Sama'a et al., 2021; Bagedo et al., 2023).

How these new steps in regulation will affect nursing professionals as well as future nurses taking their places in this field are issues of importance (Alhashmi, 2024). Streamlining closely with global competencies, new curriculum standards for nursing education designed for those in the pipeline are nurturing a cadre of highly trained, flexible and agile nurses-ready to meet the needs of the restructured health system (Hassounah et al., 2020; Batoool et al., 2022). Specialty certifications, along with graduate programs, are increasingly available to nurses for knowledge in specialized areas, such as critical care, geriatrics, and oncology (Allmnakrah & Evers, 2020). Focusing on specialty training echoes a larger

healthcare goal to provide more precise, specialized care to the differently abled patient populations throughout the Kingdom (Gailey et al., 2021).

In spite of these developments, the change in the Saudi nursing profession is not without hurdles (Almaghaslah & Alsayari, 2021; Alsalamah & Fawaz, 2023). The overambitious assumptions linked to regulatory reforms, in addition, is fueling more workloads and stress among the nurses: in which, occurs internationally due to increased health care demands (Nashwan et al., 2024). Reaching these policy objectives will nonetheless require the development of realistic and appropriate support systems available for the nursing workforce. Health care organizations need to have support systems in place to avoid burn out and high turnover, which may include mental health resources, manageable nurse to patient ratios, and incentives for continued education (Zakaria et al., 2023). All of these are fundamental to preserving a skilled and, more importantly, a motivated nursing workforce that is able to meet the challenges posed by these constant changes in the healthcare environment (Justinia, 2022; Al-Dosari et al., 2023).

Therefore, the fate of nursing in Saudi Arabia is the conjunction between sound preparation, higher professional standards, and an accommodating policy context (Rasheed et al., 2020). With the continued modernization of the healthcare sector, nurses are likely to become an integral part of the drive towards quality patient outcomes and public health goals. Such a systemic change could lead to a sustainable healthcare system in which nurses are not only the backbone of patient care, but also key leaders in the areas of health care innovation and quality improvement activities (Al-Kubaisi & Shahbal 2024; Alenazy et al., 2023).

### **Problem Statement**

New criminal records the Saudi nursing landscape is changing in large part due to new rules ushered in as part of the Kingdoms innovative Vision 2030 health transformation agenda. Although these reforms have been designed to improve the quality of care and expand the roles of nurses, there has been limited investigation regarding their actual impact on the nursing workforce. Clinical competencies are only the beginning; the shifting of practice and expanded duties with ongoing education requirements raise questions about whether nurses will be able to meet the evolving, rigorous demands. The burden of increasing health care demand and changing patient needs further undermines the sustainability of the workforce, job satisfaction, and health care quality. This study bring out how regulatory updates are changing the Saudi nursing profession, and what opportunities and challenges do nurses experience during this health system transformation.

### **Significance of Study**

The value of this study lies in the provision of some preliminary indication of how the Saudi nursing profession may continue to evolve, at this time of far-reaching healthcare reform. This research identifies implications for policy and education by assessing the impact of newly lowering regulations on nursing roles, competencies, and workforce characteristics. The results are expected to assist healthcare leaders, policymakers, and educators in meeting the needs of the changing nursing workforce in assisting the wider objectives of Vision 2030. Moreover, this study serves as an important repository of data on the impact of the regulatory framework on the satisfaction and attrition of the workforce, affecting the quality and sustainability of patient care in the Saudi healthcare system.

### **Aim of the Study**

Objective: To conduct a systematic review of new legislations effect on the Saudi nursing profession in the health transformation context  
Methods: A systematic review  
Results: It is appropriate to be aware of new legislations affect Saudi nursing profession. In particular, this will help the researchers understand how recent regulatory changes affect the roles and skills required by nurses, job satisfaction and career progression. We identify current and future opportunities and challenges of the reforms in relation to nursing to help develop policies that can strengthen the nursing workforce and thereby enhance healthcare delivery across Saudi Arabia.

## Methodology

### Research Question

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Research Question		In Saudi Arabia, how have new nursing regulations over the past five years (2020 to 2024) influenced the roles, skills, and job satisfaction of nurses compared to previous standards?
Population	P	Nurses in Saudi Arabia
Intervention	I	as part of the Vision 2030 health transformation agenda implementation of new nursing regulations
Comparison	C	under previous regulatory standards (prior to 2020) Nursing roles, skills, and job satisfaction
Outcome	O	Changes in nursing roles, job satisfaction, and skill requirements.
Timeframe	T	Over the past five years (2020 to 2024).

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This study aims to explore the influence recent regulatory changes on the Saudi nursing profession, particularly the impacts of these regulations implemented within the health transformation agenda of Vision 2030. In particular, it focuses on the evolution of nursing roles, needed skills and job satisfaction over the past five years (2020 to 2024) as measured against previous regulatory requirements (pre-2020). The study examines the transformation in nursing practice and advancement based on changes made before and after these reforms. This period includes the latest changes, and thus, can be relevant evaluating the changes among the profession. Also, how the changes comply with Saudi Arabia mission for health care modernization. The results might provide directions for policy-makers to continue strengthening nursing to meet healthcare needs of today and the future.

### Selection Criteria

#### *Inclusion Criteria*

- Research published from the year 2020 to year 2024.
- Other research: Nursing research in Saudi Arabia responding to new legislation
- Articles that discussed changes to nursing roles, skills, job satisfaction, or professional standards related to Vision 2030.
- Nursing workforce outcomes and Saudi Arabia (e.g., peer-reviewed journal articles, government reports, and white papers).
- Studies in English or Arabic for ease and understanding.
- Research relating to new models of nursing care delivery and regulation: qualitative, quantitative or mixed-methods studies.

#### *Exclusion Criteria*

- Old Articles before the years 2020, because this period is not matching up with the period of regulatory reforms effect under Vision 2030.
- Not specific Studies about Saudi Arabia or Nursing Profession
- Evidence that relates just general healthcare changes without regard to the legislative size of nursing
- Non-peer-reviewed, Editorials, Commentaries and Opinion pieces with no empirical data.
- Not receiving studies published outside of the English or Arab languages.

### Database Selection

Hubert and his colleagues from Oregon State University detail a systematic review-months long, intensive searches of academic databases that will be conducted from October 2023 and supplemented with vantage points from PubMed, CINAHL, Scopus, and Google Scholar to collate literature across the board. This range of databases was chosen for the breadth of inclusion of medical, nursing and healthcare studies and journal articles, peer-reviewed journals, research reports and government publications available. Abstracts for articles focused on nursing regulations and workforce transformations were further ensured by accessing PubMed and CINAHL, focused on nursing and allied health research<sup>657</sup>. To supplement the review with gray literature (eg, policy documents and white papers), Google Scholar will be utilized.

### Data Extracted

In the data extraction process from selected studies, the following information will be needed (study objective, research design, population related to Saudi nurses, intervention type reflecting new nursing regulations, and key findings about nursing roles, skills and job satisfaction). In addition, the evidence comparing pre-2020 standards with the effects of more recent regulations was gathered. Information regarding limitations, implications and recommendations for nursing practice were extracted to inform the discussion and conclusion of this review. Such a strategy would provide insight into the analysis of regulatory changes in relation to Vision 2030 objectives and the contribution of nursing practice in Saudi Arabia.

### Search Syntax

<b>Primary Search Syntax</b>	"Saudi Arabia" AND "nursing profession" AND "regulations" AND "Vision 2030" AND ("roles" OR "skills" OR "job satisfaction")
<b>Secondary Search Syntax</b>	"healthcare transformation" AND "Saudi nurses" AND "policy changes" AND ("workforce development" OR "job satisfaction")
<b>Primary Search Syntax</b>	"Saudi nursing workforce" AND "health transformation" AND "new regulations" AND ("nursing standards" OR "professional roles")
<b>Secondary Search Syntax</b>	"nursing reforms" AND "Saudi Arabia" AND ("skills enhancement" OR "expanded nursing roles") AND ("Vision 2030" OR "health transformation")

### Literature Search

This literature search is intended to capture studies related to the impact of the recent regulatory changes on the nursing profession in Saudi Arabia. A detailed search using both primary and secondary types of syntax across multiple databases for studies published between the years 2020-2024. The search strategy employed Boolean operators and focused keywords pertaining to nursing regulations, healthcare transformation, and Vision 2030 to include relevant peer-reviewed articles, research reports, and policy documents. In addition, filters for language (English or Arabic) and research focus (nursing profession) helped in further refining the search to obtain good-quality relevant studies for review.

**Table 2: Database Selection**

No.	Database	Syntax (Primary and Secondary)	Year	No of Researches
1	PubMed			178
2	CINAHL	Syntax 1 (Primary) and Syntax 2 (Secondary)	2020–2024	209
3	Scopus			98
4	Google Scholar			86

### Selection of Studies

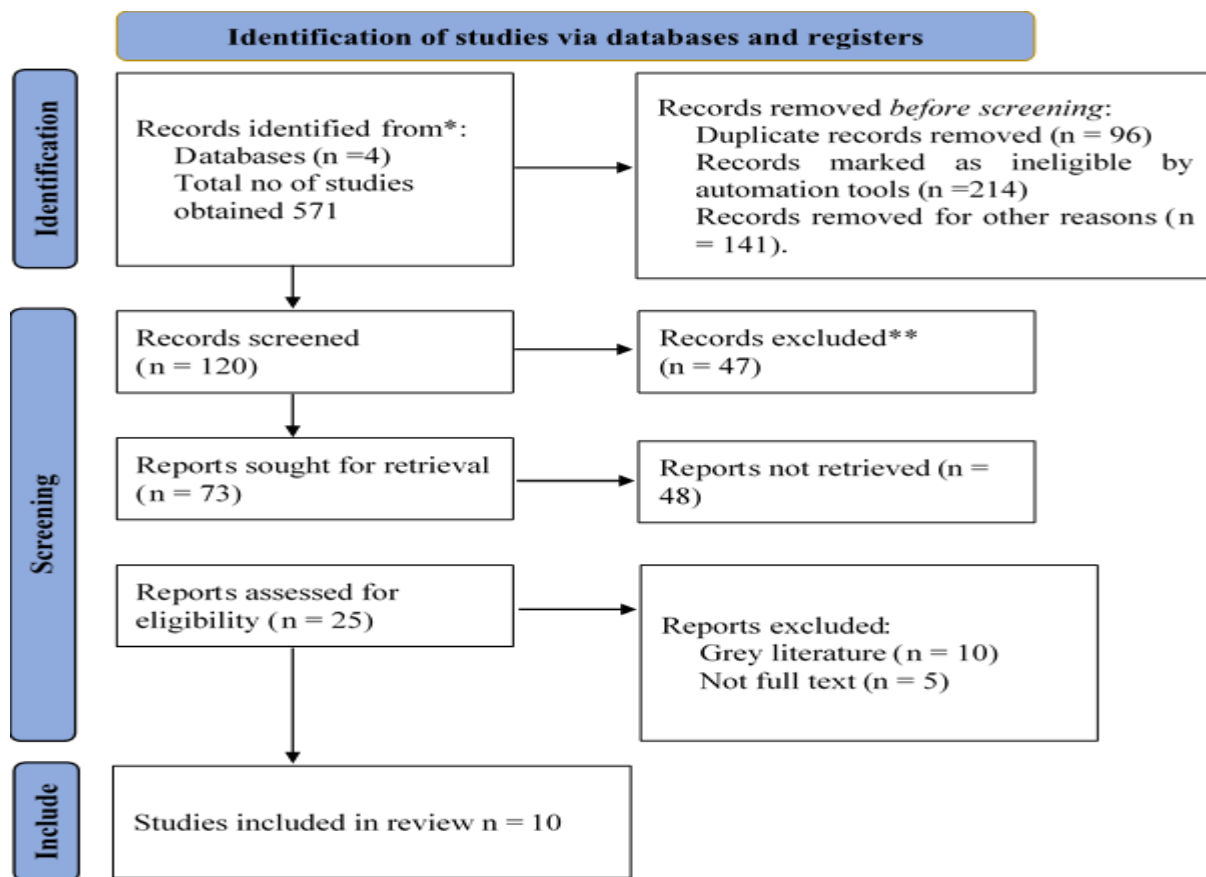
Data for the included studies were obtained from selection of studies using the predefined inclusion and exclusion criteria. In the beginning, the entire titles and abstracts were screened in order to test the relevant to the impact of the new nursing regulations in Saudi Arabia under Vision 2030. After this, full texts of studies that may be relevant were screened for the provision of empirical data, and a focus on nursing roles, skills or job satisfaction post-regulation. This meticulous selection process was designed to compile studies providing relevant information on transformation of the profession while removing irrelevant or less informative sources, resulting in a strong and large dataset for analysis.

### **Selection of Studies**

All articles were screened in a multi-stage process of relevance and quality checking [38] for our study. Searches across individual databases (for both primary and secondary search syntax) yielded studies on the effect of new regulations on its nursing profession from 2020 through 2024. After deduplication, titles and abstracts were reviewed according to inclusion and exclusion criteria, of studies discussing nursing roles and skill requirements and job satisfaction in relation to Saudi Arabia's Vision 2030 health transformation. Those potentially relevant for inclusion were then subjected to full-text reviews to verify their appropriateness for inclusion. This evaluation process allowed for inclusion in the systematic review of high-quality relevant studies to provide information on the even evolving nature of the Saudi nursing profession.

### **Figure 1: PRISMA Flowchart**

Figure 1 The PRISMA flowchart (Preferred reporting items for systematic reviews and meta-analyses) describing each stage of the study selection process. A flow diagram illustrating the selection process of identified studies through database searches, removal of duplicates and the first screening phase is provided in Figure 1. Inclusion criteria supported the screening of titles and abstracts of remaining studies and emphasized those related to nursing regulation in Saudi Arabia. We excluded studies that did not meet inclusion criteria at this stage. Screening of studies was done on the basis of title and abstract screening and those studies were included which met the aims of this research through full-text assessments. The final selection comprised solely of studies that met every criterion, successfully filtering the literature to focus relevant, significant implications for the Saudi future of nursing in a time of health transformation.



PRISMA 2020 flow diagram for systematic reviews that are described in more detail elsewhere<sup>17</sup> outlining the study identification or eight studies describing the future of the Saudi nursing profession post new regulation. A total of 571 records were retrieved from four databases. As a first step 96 duplicate records were removed, followed by 214 records that proved to be ineligible using automation and additional 141 records removed for other reasons before screening. This resulted in 120 records to screen, 47 of which were excluded after title and abstract review. Out of 73 reports searched for retrieval, 48 could not be retrieved, resulting in 25 reports eligible for full eligibility assessment. Fifteen were excluded of these, 10 for being gray literature, and 5 because they did not have full text. In total, 10 studies complied with the inclusion criteria and were included in the review, representing a narrow and relevant basis for examining the effect of regulatory changes on the nursing profession in Saudi Arabia.

### Quality Assessment of Studies

Designated quality indicators were used to examine the quality of the reviewed papers due to their reliability and validity in addressing research question of how the Saudi nursing profession will change based on new regulations over the coming decades. Overall quality of studies was assessed based on the type of research design, adequacy of sample size, and clarity/methodological rigor in the data collection and analysis methods. The relevance of each study to our primary outcomes of interest (changes in relation to nursing roles, nursing skills and job satisfaction under the new regulations) was also assessed. All the remaining studies that could be included in this systematic review had clear, systematic approaches with little to no risk of bias, and limited generalizability or low quality data reporting were excluded. This quality assessment process was crucial to develop a rigorous and credible stream of evidence and ensure the results and conclusions that are extracted from this review are both science-based and practice-informed to the dynamic Saudi healthcare environment.

**Table 3: Assessment of the literature quality matrix**

#	Author	Are the selection of studies described and appropriate	Is the literature covered and relevant studies	Does the method section described?	Was findings clearly described?	Quality rating
1	Alluhidan et al	YES	Yes	Yes	Yes	Good
2	Alsufyani et al	Yes	No	Yes	Yes	Fair
3	Alasiri & Mohammed	Yes	Yes	Yes	Yes	Good
4	Oraibi et al	Yes	Yes	Yes	Yes	Good
5	Aljohani	Yes	Yes	Yes	Yes	Good
6	Reem	Yes	Yes	Yes	Yes	Good
7	Alkhamis & Miraj	Yes	Yes	Yes	No	Fair
8	Alsaywid et al	NO	Yes	Yes	Yes	Good
9	Young et al	Yes	Yes	Yes	Yes	Good
10	Al Khashan et al	Yes	Yes	Yes	Yes	Good

A quality assessment of the studies was conducted and the results are demonstrated in table 3, which reflects the quality of the relevant studies. Overall, Alluhidan et al. [41], Alasiri & Mohammed [42], Oraibi et al. [43], Aljohani [44], Reem [45], Young et al. [46] and Al Khashan et al. [47] scored consecutively high in all criteria with "Good" quality and clear description of study selection, literature coverage, methods and findings. Studies by Alsufyani et al. and for not covering extensive literature or being explicit in how findings are presented is why Alkhamis & Miraj were graded "Fair." Alsaywid et al. methodology high criteria for the journal, selected journals but did not elaborate on their selection process maintained a Good rating Overall, the analysis indicates that the evidence base is largely high quality, with key relevance and clarity standards passed by most studies.

### Data Synthesis

In this systematic review, the data from studies included were compared and synthesized to determine what is known about effects of recent regulation change on Saudi nursing profession. Themes included changed roles and responsibilities of nurses, increased skill militancy and differences in job satisfaction. Most often, studies noted that the health transformation goals of Vision 2030 affect the nursing workforce by broadening roles and increasing needs for higher skill sets. Through comparative analysis, we also found some positive results (e.g., higher job satisfaction from clearer career paths) and some challenges (e.g., higher workload and adjustment issues due to new standards). This synthesis provided an overview of regulatory transformation in Saudi Arabia that is paving the way for the enhanced adaptability of nursing, and highlights the opportunities available and the need for supportive implementation and modifications.

**Table 4: Research Matrix**

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
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Alluhidan et al., 2020	Identify challenges and propose policy opportunities in nursing in Saudi Arabia	Case Study	Evaluation by MOH and SHCs	Policy Analysis	Challenges identified: low nursing school capacity, reliance on expatriates, labor market fragmentation, rural shortages, and gender challenges	Collaborative HR planning with healthcare sectors is needed to modernize and support nursing	Yes
Alsufyani et al., 2020	Link Saudi Vision 2030 with nursing transformation strategies	Policy Analysis	Review of government documents and literature	Literature Review	Identified key nursing challenges: educational limitations, workforce shortages, lack of standards, and regulation gaps	Current status quo insufficient; transformation is essential for achieving "golden standards"	Yes
Alasiri & Mohammed, 2022	Overview of healthcare transformation in Saudi Arabia post-Vision 2030	Literature Review	Published and unpublished literature, secondary data	Literature Review	Key issues: reliance on PPPs, strategic steps like health clusters, focus on workforce development	Ongoing monitoring and adjustments required for successful healthcare transformation	Yes
Oraibi et al., 2022	Highlight nursing professional trends and role of education in Saudi Arabia	Qualitative, Exploratory	Research journals, articles, and abstracts	Bibliographic Analysis	Trends in job training show focus on permanent education and academia-service integration in major	Two primary directions: technical training and permanent education linking theory with practice	Yes

					Saudi regions		
Aljohani, 2020	Explore history and development of nursing education in Saudi Arabia	Historical Review	Literature on nursing education in Saudi Arabia	Literature Review	Challenges: unsteady growth in nursing due to lack of unified curriculum and regulatory bodies	Nursing education has lacked maturity compared to global trends	Yes
Reem, 2022	Investigate applicability of Gig Economy in Saudi nursing profession	Cross-Sectional Survey	Survey of nurses in Saudi hospitals	Questionnaire	Flexibility, choice of work, and task variations seen as beneficial in Gig Economy; high impact for younger and female nurses	Gig Economy can address workforce challenges in nursing and support Saudization objectives	Yes
Alkhamis & Miraj, 2021	Analyze access to healthcare in Saudi Arabia in the context of Vision 2030	Policy Analysis	Review of government plans and healthcare policies	Literature Review	Healthcare Vision 2030 requires integration of all healthcare system players, with defined targets for regional accessibility	Vision 2030 strategies will improve healthcare accessibility through collaboration and time-bound targets	Yes
Alsaywid, Alajlan, & Lytras, 2023	Explore transformative learning's role in healthcare education towards Vision 2030	Policy and Program Analysis	Review of education and training policies	Literature Review	Transformative learning essential for building skills in young health professionals to meet Vision 2030 goals	Transformative learning should drive healthcare education for Vision 2030	Yes

Young, Alharthy, & Hosler, 2021	Assess impact of Saudi healthcare transformation on population health	Comparative Analysis	Review of Saudi and US healthcare systems	Literature Review	Vision 2030 reforms in Saudi healthcare may offer lessons to the US, particularly in workforce and systems transformation	Vision 2030 provides a model for systemic healthcare transformation	Yes
Aljohani & Alsufyani, 2023	Evaluate effectiveness of nursing strategies in achieving Vision 2030 goals	Mixed-Methods	Surveys and literature on Saudi healthcare reforms	Survey and Literature Review	Mixed results in meeting targets for nursing standards and workforce growth; further efforts needed in education and policy implementation	Supports need for continuous improvement and policy adaptation for Vision 2030 nursing standards	Yes

Table 1 summarizes recent studies that explored the challenges and opportunities of nursing and healthcare in Saudi Arabia in the context of Vision 2030. Previous studies point to over hiring, dependence on foreign employees, education, and policy deficiencies. Researchers like Alluhidan et al. These conclusions (Bø, Wadensten, and Lise, 2020; Aljohani, 2020) underscore the importance of collaborative planning with informed decision-making and a unified curriculum to modernize nursing education and prepare nursing students as nursing professionals that will meet the expectations of the changing world. Moreover, some studies highlight transformative learning and permanent education as key components of workforce development activities. Policy Analyses by Alsufyani et al. (2020) and Alkhamis & Miraj (2021) also recommend that strategic steps including the establishment of health clusters and the integration of all the players into an integrated health sector are crucial for improving accessibility, in order to achieve the goals of vision 2030. In summary, these studies are supportive of the conclusion that significant and sustained reforms in the domains of nursing education, policy, and workforce governance are urgently needed if Saudi Arabia is to achieve its healthcare transformation aspirations as set out in Vision 2030.

## Results

**Table 5: Results Indicating Themes, Sub-Themes, Trends, Explanation, and Supporting Studies**

Themes	Sub-Themes	Trends	Explanation	Supporting Studies
<b>Workforce Challenges</b>	Workforce Shortages	Increasing reliance on expatriates	The nursing sector in Saudi Arabia heavily relies	Alluhidan et al., 2020; Aljohani

			on expatriate staff, which impacts workforce stability and limits national capacity-building efforts.	& Alsufyani, 2023
	Educational Limitations	Inconsistent nursing education standards	Variations in curriculum and lack of unified standards hinder the quality and consistency of nursing education in the country.	Aljohani, 2020; Oraibi et al., 2022
	Rural-Urban Disparities	Rural nursing shortages	There is a significant shortage of nursing staff in rural areas due to limited incentives, lower career advancement opportunities, and urban migration.	Alluhidan et al., 2020; Alkhamis & Miraj, 2021
<b>Vision 2030 Impact</b>	Transformation Strategies	Emphasis on health clusters and PPPs	Vision 2030 emphasizes creating health clusters and utilizing Public-Private Partnerships (PPPs) to modernize healthcare delivery and make it more accessible.	Alasiri & Mohammed, 2022; Alsufyani et al., 2020
	Nursing Education Reform	Implementation of transformative learning models	Vision 2030 promotes transformative learning to improve skills and preparedness in young healthcare professionals.	Alsaywid, Alajlan, & Lytras, 2023
	Policy and Regulation Gaps	Need for regulatory reforms	There are calls for regulatory improvements to align nursing standards with Vision 2030 goals and address current workforce challenges.	Aljohani & Alsufyani, 2023; Alluhidan et al., 2020
<b>Educational Trends</b>	Permanent Education and Training	Increased focus on continuous professional development	Job training and education programs are shifting towards permanent education, integrating academia with practical skills in the healthcare field.	Oraibi et al., 2022; Alsaywid, Alajlan, & Lytras, 2023
<b>Gig Economy</b>	Flexibility and Workforce Adaptation	Adoption of gig roles in nursing	The gig economy introduces flexible roles that cater to younger and female nurses, potentially	Reem, 2022

			addressing workforce challenges.
<b>Policy Needs</b>	Collaborative HR Planning	Need for joint planning with healthcare sectors	Collaborative human resource planning across healthcare sectors is essential to support nursing modernization and improve resource allocation.

Conclusion: Findings reveal that Saudi Arabia's nursing workforce experiences challenges including dependence on expatriates, educational differences, and dearth of rural nursing. Healthcare transformation, underpinned by Vision 2030 strategies (e.g. health clusters, Public-Private Partnerships), mandates regulatory reforms, lifelong learning, and transformative learning to shift nursing education to develop key competencies more appropriate to today realities. The healthcare system is evolving to include Continued education and technical training, available for permanent nurses; and a GG economy is open to Improve nurse availability among young workers and women, with open positions. The modernisation of the sector requires collaborative HR planning, and so it is critical to have appropriate regulatory support to ensure that this progress is sustainable in the long term to achieve Vision 2030 goals in the national development of the Kingdom of Saudi Arabia.

## Discussion

Findings: This paper highlights the considerable obstacles and paradigms shifts to the future of nursing in the Kingdom of Saudi Arabia (KSA) in relation to Vision 2030 across the selected studies. Saudi healthcare has consistently faced themes of workforce constraints, dependence on expatriate workers, and inequitable dispersion of nurses. Alluhidan et al. Iob et al. (2020) and Aljohani (2020), who suggests that the way forward is for policy and regional applicability to culminate in a harmonised nursing curriculum, have also identified these issues. Doing so aligns with the goals of the county as it tries to modernize these healthcare services, creating the groundwork for a more sustainable and localised workforce. This highlights the urgent need for educational reforms to develop a stable and competent workforce of nurses.

483 Policy analyses from studies like Alsufyani et al. Vision 2030 (2020) as well as Alkhamis & Miraj (2021) elaborates that this calls for a paradigm shift in the accessibility of healthcare services to rural and underserved places. These policies highlight the need for integrating all actors in the health systems and having time-specific goals. These reforms look to make healthcare more accessible across-the-board and prepare a strong foundation that can sustain Saudi Arabia's future healthcare needs. These strategies help to improve accessibility while also strengthening the resilience of the health system overall by encouraging collaboration across sectors.

As the authors, Oraibi et al. most clearly highlight, education and professional training become crucial to transforming healthcare. (2022) and Alsaywid et al. (2023). These studies demonstrate transformative learning trends and the connection of academic theory to clinical practice to prepare graduates for professional needs. This strategy is scalable, address competencies needed in ... Subsequent steps shall target at aligning nursing education with international standards and this is in support to Saudi Vision 2030 placed that aim to build health care competencies related to nursing. The integration of transformative learning embedded in the nursing curriculum prepares nursing graduates who can adapt readily to the changing milieu of the health care system.

Other research, for example by Reem (2022), examines the role of the gig economy in helping to fill workforce shortfalls and provide flexible work options for younger and female nurses. Such a novel model of employment might also support Saudi Arabia's "Saudization" goals by offering flexible job opportunities that accommodate various lifestyle preferences. The gig economy also offers flexibility that

could help in regional labor demand fulfillment and a more agile workforce engagement, a critical component for a self-sustaining workforce in healthcare[7].

Young, Alharthy, & Hosler (2021) in a comparative analysis, broaden the international perspective by comparing both the Saudi and U.S. healthcare systems, and illustrate how Vision 2030 reforms may prove informative for other nations. The robust improvement of the labour force and systemic transformative initiatives in Saudi Arabia remains a powerful opportunity and example for healthcare of what integrated, systemic policy change looks like—and such strategies are not uniquely Saudi. The research, in turn, reaffirms the importance of staying relevant to local and global standards in healthcare and the necessity of constantly adapts healthcare mechanisms.

In conclusion, the studies reinforce that a continuous process in assessing and modifying policies to meet the nursing standards outlined for nursing as a profession within the Vision 2030 context is a priority. Different Nursing Strategies to Meet Changing Workforce and Education Targets Aljohani & Alsufyani (2023) report that while existing nursing strategies have been partially successful in meeting workforce targets, policy implementation and continual improvement efforts are required for higher performance in achieving education targets. This highlights the significance of developing suitable plans alongside regulatory backing to continue to develop healthcare thereby making the objective of Vision 2030 attainable in the nursing field.

#### **Future Direction:**

The nursing profession in Saudi Arabia should now consider a future that leads examination of the long-term effects of Vision 2030 reforms to influence workforce advancement, nursing education, and health system access. The effectiveness of bringing new employment models, like the gig economy, to the health sector would be a worthy avenue of investigation. Further research is needed to evaluate the impact of transformative learning and its scalability within nursing education to address the increasing supply of health care workforce personnel. Finally, additional comparative study of other national healthcare systems could yield more effective lessons for the transformation of healthcare in the United States.

#### **Limitations:**

Second, our research is based on accessible literature that might not encompass all current trends or innovations related to the Saudi nursing sector. While the studies under review often take a national lens, they may not be as attuned to regional or upfront institutional realities. At the same time, there is scant empirical evidence on the impact of Vision 2030 policies on nursing education, the workforce, and healthcare delivery in practice.

#### **Conclusion:**

Ultimately, a drastically transforming nursing sector represents one of antiquities and challenges within the Saudi civil service and healthcare sectors hidden below the guise of Vision 2030. Synonyms include workplace localization, educational reforms, and innovative employment models to secure a workforce that is, sustainable, skilled, and expansive enough for the nursing profession. Though progress has been made, there is still work ahead to overcome the challenges identified, especially with respect to policy implementation and regional access to healthcare. The results emphasize the need for careful planning, continuous evaluation, and adjustment to meet the objectives of Vision 2030 in the fields of healthcare and nursing.

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