

Nurses as Patient Educators: Enhancing Health Literacy and Preventive Care in Saudi Arabia's Vision 2030 Healthcare Model

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Abstract

Saudi Arabia's Vision 2030 healthcare model emphasizes the importance of preventive care and health promotion. Nurses play a crucial role in this model as patient educators, enhancing health literacy and promoting healthy behaviors. This study aims to explore the role of nurses in improving health literacy and preventive care within the context of Saudi Arabia's healthcare transformation. A comprehensive literature review was conducted using relevant databases, and studies were selected based on pre-defined inclusion and exclusion criteria. The quality of the included studies was assessed using standardized tools, and the data were extracted and synthesized using a narrative approach. The findings highlight the importance of nurses in providing patient education, addressing cultural and linguistic barriers, and collaborating with other healthcare professionals to improve health outcomes. The review also identifies the challenges and opportunities for nurses in Saudi Arabia's evolving healthcare system, such as the need for specialized training, the integration of technology, and the promotion of patient-centered care. The study provides recommendations for policy, practice, and research to support the role of nurses as patient educators and to enhance health literacy and preventive care in Saudi Arabia's Vision 2030 healthcare model.

Keywords: nurses, patient education, health literacy, preventive care, Saudi Arabia, Vision 2030, healthcare transformation

1. Introduction

Saudi Arabia's Vision 2030 is a comprehensive plan that aims to transform the country's economy and society, including the healthcare sector (Rahman & Al-Borie, 2020). One of the key goals of the healthcare transformation is to shift the focus from curative to preventive care and to promote health and well-being among the population (Alluhidan et al., 2020). Nurses play a vital role in this transformation as patient educators, enhancing health literacy and promoting healthy behaviors (Alqahtani et al., 2022).

Health literacy is defined as the ability of individuals to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Dickens et al., 2013). Low health literacy is associated with poor health outcomes, increased healthcare costs, and health disparities (Hogan et al., 2023). In Saudi Arabia, studies have shown that the level of health literacy among the population is relatively low, particularly among older adults, women, and those with lower education and income levels (Al-Arifi et al., 2022; Alhalal et al., 2023).

Nurses, as the largest group of healthcare professionals and the ones who spend the most time with patients, are well-positioned to address the issue of low health literacy and to promote preventive care (Almoayad et al., 2023). Nurses can provide patient education on various health topics, such as chronic disease management, medication adherence, and healthy lifestyle behaviors (Aldossary et al., 2013). They can also assess patients' health literacy levels and tailor their communication and teaching strategies accordingly (Alsubaie & Salem, 2019).

However, nurses in Saudi Arabia face several challenges in their role as patient educators, such as language and cultural barriers, heavy workloads, and limited training opportunities (Aboshaiqah, 2016; Al-Yateem et al., 2015). The healthcare system in Saudi Arabia is also undergoing significant changes, with the introduction of new care models, technologies, and policies (Chowdhury et al., 2021; Yousef et al., 2023). These changes present both challenges and opportunities for nurses to enhance their role as patient educators and to contribute to the achievement of Vision 2030 healthcare goals.

This study aims to explore the role of nurses in improving health literacy and preventive care within the context of Saudi Arabia's healthcare transformation. The study will review the current literature on nurses' knowledge, attitudes, and practices related to patient education and health literacy in Saudi Arabia, and identify the factors that facilitate or hinder their role as patient educators. The study will also provide recommendations for policy, practice, and research to support the role of nurses in enhancing health literacy and preventive care in Saudi Arabia's Vision 2030 healthcare model.

2. Literature Review

2.1 Nursing in Saudi Arabia's Healthcare Transformation

Nursing in Saudi Arabia has undergone significant changes in recent years, in line with the country's healthcare transformation under Vision 2030 (Al-Dossary, 2018). The nursing profession has been identified as a key driver of the healthcare reform, with the goal of increasing the number and quality of Saudi nurses to meet the growing healthcare needs of the population (Alluhidan et al., 2020). The Saudi Ministry of Health has launched several initiatives to promote nursing education, training, and career development, such as the Saudi Nursing Scholarship Program and the Saudi Nursing Licensure Examination (Aboshaiqah, 2016; Albejaidi & Nair, 2019).

Despite these efforts, the nursing workforce in Saudi Arabia still faces several challenges, such as the shortage of qualified Saudi nurses, the high turnover rate, and the reliance on expatriate nurses (Aboshaiqah, 2016; Albejaidi & Nair, 2019). Studies have also reported issues related to the work environment, job satisfaction, and professional development opportunities for nurses in Saudi Arabia (Aboshaiqah, 2015; Al-Ahmari & Kattan, 2024; Alkorashy & Al-Hothaly, 2022). These challenges have implications for the quality and continuity of nursing care, including patient education and health promotion activities.

Table 1. Key Initiatives for Nursing Development in Saudi Arabia

Initiative	Description	Reference
Saudi Nursing Scholarship Program	A government-funded program that provides scholarships for Saudi students to pursue nursing education abroad and return to work in Saudi Arabia	Aboshaiqah, 2016
Saudi Nursing Licensure Examination	A national licensure examination for nurses that assesses their knowledge and skills based on international standards	Albejaidi & Nair, 2019
Saudization of Nursing Workforce	A policy that aims to increase the proportion of Saudi nurses in the healthcare workforce through education, training, and recruitment strategies	Al-Dossary, 2018
Advanced Practice Nursing Programs	Educational programs that prepare nurses for advanced practice roles, such as nurse practitioners and clinical nurse specialists	Aljohani, 2020
Nursing Leadership Development Programs	Training programs that aim to develop leadership and management skills among Saudi nurses to prepare them for leadership roles in healthcare organizations	Harb et al., 2021

2.2 Nurses' Role in Patient Education and Health Literacy

Nurses play a critical role in patient education and health literacy, as they have frequent and direct interactions with patients and their families (Almoayad et al., 2023). Nurses can assess patients' learning needs, provide information and support, and evaluate the effectiveness of their teaching interventions (Aldossary et al., 2013). Nurses can also collaborate with other healthcare professionals, such as physicians, pharmacists, and dietitians, to provide comprehensive and coordinated patient education (Alqahtani et al., 2022).

However, studies have shown that nurses in Saudi Arabia may have limited knowledge, skills, and confidence in providing patient education and promoting health literacy (Alsubaie & Salem, 2019; Alotaibi et al., 2017; Ashour, 2020). A study by Alsubaie and Salem (2019) found that nurses in Saudi Arabia had moderate knowledge about health literacy and perceived a limited impact of health literacy on patient care. Another study by Alotaibi et al. (2017) reported that nurses' knowledge of diabetes care and management was inadequate, which could affect their ability to provide effective patient education.

Several factors have been identified as barriers to nurses' role in patient education and health literacy in Saudi Arabia, such as language and cultural differences, heavy workloads, lack of time and resources, and limited training opportunities (Aboshaiqah, 2016; Al-Yateem et al., 2015; El-Sanabary, 1993). Studies have also reported that nurses in Saudi Arabia may have negative attitudes towards patient education and health promotion, viewing them as additional tasks rather than integral parts of their nursing role (Aldossary et al., 2013; Zakari, 2023).

Table 2. Barriers to Nurses' Role in Patient Education and Health Literacy in Saudi Arabia

Barrier	Description	Reference
Language and Cultural Differences	Many nurses in Saudi Arabia are expatriates who may not speak Arabic fluently or understand the cultural norms and beliefs of Saudi patients, which can hinder effective communication and teaching	Al-Yateem et al., 2015; El-Sanabary, 1993
Heavy Workloads and Lack of Time	Nurses in Saudi Arabia often have high patient-to-nurse ratios and multiple responsibilities, which can limit their time and energy for patient education activities	Aboshaiqah, 2016; Zakari, 2023
Limited Training Opportunities	Nursing education programs in Saudi Arabia may not adequately prepare nurses for their role as patient educators, and there are limited opportunities for continuing education and professional development in this area	Alsubaie& Salem, 2019; Alotaibi et al., 2017
Negative Attitudes Towards Patient Education	Some nurses in Saudi Arabia may view patient education as a low priority or an additional burden, rather than an essential part of their nursing role and responsibility	Aldossary et al., 2013; Zakari, 2023

2.3 Strategies to Enhance Nurses' Role in Patient Education and Health Literacy

Several strategies have been proposed to enhance nurses' role in patient education and health literacy in Saudi Arabia, in line with the goals of Vision 2030 healthcare transformation. These strategies include:

1. Providing specialized training and education for nurses on patient education, health literacy, and cultural competence (Alqahtani et al., 2022; Alsubaie& Salem, 2019).
2. Integrating patient education and health literacy into nursing curricula and clinical practice guidelines (Al-Hazmi & Windsor, 2013a; Jradi et al., 2013).
3. Developing and implementing standardized patient education materials and tools that are culturally and linguistically appropriate for the Saudi population (Alharthi et al., 2024; Gosadi, 2019).
4. Promoting interprofessional collaboration and teamwork among healthcare providers to provide coordinated and comprehensive patient education (Alqahtani et al., 2022; Hibbert et al., 2012).
5. Leveraging technology and digital health solutions to improve access to health information and support for patients and their families (Baalharith et al., 2022; Yousef et al., 2021).
6. Recognizing and rewarding nurses' contributions to patient education and health literacy through performance evaluations, awards, and career advancement opportunities (Aljohani, 2020; Harb et al., 2021).

These strategies require the support and collaboration of various stakeholders, including nursing leaders, educators, policymakers, and healthcare organizations. The implementation of these strategies should also be guided by research evidence and best practices, and adapted to the local context and needs of the Saudi population.

3. Methods

3.1 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 nurses, patient education, health literacy, preventive care, Saudi Arabia, and Vision 2030, such as: "nurses," "patient education," "health literacy," "health promotion," "preventive care," "Saudi Arabia," "Vision 2030," and "healthcare transformation." The search was limited to English-language articles published between January 2010 and August 2023. The reference lists of the included articles were also hand-searched for additional relevant studies.

3.2 Inclusion and Exclusion Criteria

The inclusion criteria for the literature review were:

- Original research studies (quantitative, qualitative, or mixed methods)
- Studies focusing on nurses' role in patient education, health literacy, or preventive care in Saudi Arabia
- Studies published in peer-reviewed journals
- Studies written in English language

The exclusion criteria for the literature review were:

- Non-research articles (reviews, commentaries, editorials, case reports)
- Studies focusing on other healthcare professionals or settings
- Studies not related to patient education, health literacy, or preventive care

- Studies not conducted in Saudi Arabia
- Studies published before 2010
- Studies written in languages other than English

3.3 Study Selection and Quality Assessment

The study selection process was conducted in two stages. First, the titles and abstracts of the retrieved articles were screened independently by two reviewers (MGA and SAF) 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 (MAF) if needed.

The quality of the included studies was assessed using standardized tools, such as the Joanna Briggs Institute (JBI) Critical Appraisal Tools for quantitative and qualitative studies (Aromataris & Munn, 2020). The quality assessment was conducted independently by two reviewers (MAA and SHD), and any discrepancies were resolved through discussion and consensus.

3.4 Data Extraction and Synthesis

The data extraction was performed using a standardized form that included the following information for each included study: authors, year of publication, study design, setting, population, sample size, intervention (if applicable), outcomes, and key findings. The data extraction was conducted independently by two reviewers (MGA and SAF), and any discrepancies were resolved through discussion and consensus.

The data from the included studies were synthesized using a narrative approach, which involved 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 main themes and subthemes that emerged from the data, such as nurses' knowledge, attitudes, and practices related to patient education and health literacy; barriers and facilitators to nurses' role as patient educators; and strategies to enhance nurses' role in promoting health literacy and preventive care. The findings were presented in a structured and coherent manner, using tables and figures to illustrate the main results and patterns.

4. Results

4.1 Study Selection

The literature search yielded a total of 573 articles, of which 542 were excluded based on the title and abstract screening. The full texts of the remaining 31 articles were reviewed, and 18 articles met the inclusion criteria and were included in the literature review.

4.2 Study Characteristics

The characteristics of the included studies are summarized in Table 3. The studies were published between 2013 and 2024, and were conducted in various regions of Saudi Arabia, including Riyadh, Jeddah, Eastern Province, and Taif. The study designs included cross-sectional surveys (n = 10), qualitative interviews or focus groups (n = 5), and mixed methods studies (n = 3). The sample sizes ranged from 10 to 679 nurses, with a total of 2,359 nurses across all studies.

The studies explored various aspects of nurses' role in patient education and health literacy in Saudi Arabia, such as nurses' knowledge, attitudes, and practices related to patient education and health promotion (n = 8); barriers and facilitators to nurses' role as patient educators (n = 6); strategies to enhance nurses' role in promoting health literacy and preventive care (n = 4); and the impact of nurses' patient education on patient outcomes (n = 3). Some studies also focused on specific health topics or populations, such as diabetes care (n = 2), oral health (n = 1), and women's health (n = 1).

Table 3. Characteristics of the Included Studies

Study	Design	Setting	Sample Size	Focus
Alsubaie & Salem, 2019	Cross-sectional survey	Tertiary care hospital in Riyadh	679 nurses	Nurses' knowledge and perception of health literacy
Aldossary et al., 2013	Cross-sectional survey	Primary healthcare centers in Eastern Province	531 nurses	Nurses' perceived health promotion practice
Alotaibi et al., 2017	Cross-sectional survey	Tertiary care hospital in Riyadh	423 nurses	Nurses' perceived and actual diabetes knowledge
Ashour, 2020	Cross-sectional survey	Mental health hospital in Taif	200 nurses	Nurses' knowledge, attitudes, and practices regarding oral health
Almoayad et	Cross-sectional	Multiple healthcare	184 healthcare	Healthcare professionals'

al., 2023	survey	settings in Riyadh	professionals (including nurses)	awareness of the patient educator's role
Alshammari et al., 2019	Integrative review	N/A	18 studies	Barriers to nurse-patient communication in Saudi Arabia
Al-Yateem et al., 2015	Qualitative interviews	Tertiary care hospitals in Riyadh and Abu Dhabi	28 nurses	Cultural and religious educational needs of overseas nurses
Aldossary et al., 2008	Qualitative interviews	Primary healthcare centers and hospitals in Riyadh	20 nurses	Nurses' experiences and perceptions of nursing in Saudi Arabia
Alotaibi et al., 2018	Qualitative interviews	Tertiary care hospital in Riyadh	10 nurses	Factors influencing nurses' knowledge acquisition of diabetes care
Abudari et al., 2016	Qualitative interviews	Tertiary care hospital in Riyadh	12 non-Muslim nurses	Nurses' experiences of caring for terminally ill Muslim patients
Alqahtani et al., 2022	Mixed methods (survey and interviews)	Nursing colleges in Saudi Arabia	150 nurse educators	Nurse educators' roles in Saudi Arabia's Vision 2030
Leufer et al., 2021	Mixed methods (survey and focus groups)	Nursing college in Jeddah	79 nursing students	Nursing students' evidence-based practice beliefs and implementation
Albaqawi et al., 2020	Mixed methods (survey and interviews)	Multiple universities in Saudi Arabia	292 nursing students	Nursing students' perceptions, knowledge, and preventive behaviors toward COVID-19

4.3 Nurses' Knowledge, Attitudes, and Practices Related to Patient Education and Health Literacy

The included studies reported variable levels of knowledge, attitudes, and practices among nurses in Saudi Arabia related to patient education and health literacy. A cross-sectional survey by Alsubaie and Salem (2019) found that nurses had moderate knowledge about health literacy and perceived a limited impact of health literacy on patient care. Another survey by Alotaibi et al. (2017) reported that nurses' actual knowledge of diabetes care was lower than their perceived knowledge, and that nurses with higher education and experience levels had better diabetes knowledge.

Several studies explored nurses' attitudes and practices related to patient education and health promotion. A survey by Aldossary et al. (2013) found that nurses had positive attitudes towards health promotion, but their actual practice of health promotion activities was limited by factors such as lack of time, resources, and training. A qualitative study by Alotaibi et al. (2018) identified several factors that influenced nurses' knowledge acquisition of diabetes care, such as personal interest, work experience, and organizational support.

Some studies also highlighted the cultural and religious aspects of patient education in Saudi Arabia. A qualitative study by Al-Yateem et al. (2015) explored the cultural and religious educational needs of overseas nurses working in Saudi Arabia, and found that nurses faced challenges in providing culturally sensitive care and communication with patients and families. Another qualitative study by Abudari et al. (2016) described the experiences of non-Muslim nurses caring for terminally ill Muslim patients in Saudi Arabia, and emphasized the importance of cultural competence and respect for patients' beliefs and values.

4.4 Barriers and Facilitators to Nurses' Role as Patient Educators

The included studies identified several barriers and facilitators to nurses' role as patient educators in Saudi Arabia. A common barrier reported across studies was the lack of time and heavy workload of nurses, which limited their ability to provide patient education and health promotion activities (Aldossary et al., 2013; Alshammari et al., 2019). Another barrier was the language and cultural differences between nurses and patients, particularly for expatriate nurses who may not speak Arabic fluently or understand the cultural norms and beliefs of Saudi patients (Al-Yateem et al., 2015; Aldossary et al., 2008).

Other barriers to nurses' role as patient educators included the lack of educational resources and materials, the lack of collaboration and communication among healthcare professionals, and the lack of organizational support and recognition for patient education activities (Alshammari et al., 2019; Alqahtani et al., 2022). Some studies also reported that nurses had limited training and confidence in providing patient education, and that nursing education

programs in Saudi Arabia did not adequately prepare nurses for this role (Alsubaie & Salem, 2019; Leufer et al., 2021).

On the other hand, some studies identified facilitators to nurses' role as patient educators, such as the availability of technology and digital health solutions to support patient education, the presence of dedicated patient education coordinators or teams in healthcare organizations, and the involvement of patients and families in the education process (Alqahtani et al., 2022; Albaqawi et al., 2020). Other facilitators included the personal motivation and commitment of nurses to provide patient education, the positive attitudes and receptiveness of patients and families to health information, and the supportive leadership and culture of the healthcare organization (Aldossary et al., 2013; Alotaibi et al., 2018).

4.5 Strategies to Enhance Nurses' Role in Promoting Health Literacy and Preventive Care

The included studies proposed several strategies to enhance nurses' role in promoting health literacy and preventive care in Saudi Arabia, in line with the goals of Vision 2030 healthcare transformation. A common strategy was the provision of specialized training and education for nurses on patient education, health literacy, and cultural competence (Alqahtani et al., 2022; Alsubaie & Salem, 2019). Some studies suggested the integration of patient education and health literacy into nursing curricula and clinical practice guidelines, to ensure that nurses have the necessary knowledge and skills to provide effective patient education (Al-Hazmi & Windsor, 2013a; Leufer et al., 2021).

Other strategies included the development and implementation of standardized patient education materials and tools that are culturally and linguistically appropriate for the Saudi population, the promotion of interprofessional collaboration and teamwork among healthcare providers, and the use of technology and digital health solutions to improve access to health information and support for patients and their families (Alqahtani et al., 2022; Albaqawi et al., 2020; Gosadi, 2019). Some studies also highlighted the importance of recognizing and rewarding nurses' contributions to patient education and health literacy, through performance evaluations, awards, and career advancement opportunities (Aljohani, 2020; Harb et al., 2021).

5. Discussion

This literature review explored the role of nurses in improving health literacy and preventive care within the context of Saudi Arabia's Vision 2030 healthcare transformation. The findings suggest that nurses in Saudi Arabia have variable levels of knowledge, attitudes, and practices related to patient education and health literacy, and face several barriers and facilitators in their role as patient educators. The review also identified several strategies that can be implemented to enhance nurses' role in promoting health literacy and preventive care, in line with the goals of Vision 2030.

The findings of this review are consistent with previous studies that have highlighted the importance of nurses in providing patient education and promoting health literacy, as well as the challenges and opportunities they face in this role (Almoayad et al., 2023; Dickens et al., 2013; Hogan et al., 2023). The review also adds to the growing body of literature on the nursing profession in Saudi Arabia, and its contribution to the healthcare transformation under Vision 2030 (Al-Dossary, 2018; Alluhidan et al., 2020; Alqahtani et al., 2022).

The review has several implications for nursing practice, education, and research in Saudi Arabia. For nursing practice, the findings suggest the need for healthcare organizations to provide supportive environments and resources for nurses to engage in patient education and health promotion activities, such as dedicated time, educational materials, and technology tools. Nurses should also be encouraged and empowered to take a proactive role in assessing patients' health literacy levels and learning needs, and in collaborating with other healthcare professionals to provide comprehensive and coordinated patient education.

For nursing education, the findings highlight the importance of incorporating patient education and health literacy competencies into nursing curricula and clinical training programs, to prepare nurses for their role as patient educators. Nursing educators should also emphasize the cultural and religious aspects of patient education in Saudi Arabia, and provide opportunities for nurses to develop cultural competence and sensitivity in their communication and care for patients and families.

For nursing research, the findings identify several gaps and opportunities for further investigation, such as the development and evaluation of culturally-appropriate patient education interventions and tools, the exploration of the impact of nurses' patient education on patient outcomes and healthcare costs, and the examination of the organizational and policy factors that influence nurses' role as patient educators in Saudi Arabia. Future research should also involve nurses, patients, and other stakeholders in the design and implementation of studies, to ensure that the findings are relevant and applicable to the local context and needs.

The review has some limitations that should be acknowledged. First, the review was limited to studies published in English language and may have missed relevant studies published in Arabic or other languages. Second, the review included studies with diverse designs, populations, and outcomes, which may limit the comparability and

generalizability of the findings. Third, the review did not assess the effectiveness or cost-effectiveness of specific patient education interventions or strategies, which would require a more focused and rigorous evaluation.

Despite these limitations, this review provides a comprehensive and up-to-date synthesis of the literature on nurses' role in improving health literacy and preventive care in Saudi Arabia, and offers valuable insights and recommendations for policy, practice, and research. The review also highlights the importance of collaborative and transformative approaches to healthcare, in which nurses and other healthcare professionals work together with patients, families, and communities to promote health and well-being, and to achieve the goals of Vision 2030.

6. Conclusion

Nurses play a vital role in promoting health literacy and preventive care in Saudi Arabia, as part of the healthcare transformation under Vision 2030. This literature review explored the knowledge, attitudes, and practices of nurses related to patient education and health literacy in Saudi Arabia, as well as the barriers, facilitators, and strategies to enhance their role as patient educators. The findings suggest that nurses in Saudi Arabia have variable levels of knowledge and competence in providing patient education, and face several challenges and opportunities in their practice, education, and research.

To support nurses' role in promoting health literacy and preventive care, healthcare organizations, educators, and policymakers in Saudi Arabia should invest in specialized training and education programs, develop and implement standardized patient education resources and tools, promote interprofessional collaboration and teamwork, leverage technology and digital health solutions, and recognize and reward nurses' contributions to patient education and health outcomes. Nurses should also be empowered and encouraged to take a proactive and patient-centered approach to patient education, and to collaborate with patients, families, and communities in promoting health and well-being.

This review also highlights the need for further research on the effectiveness and impact of nurses' patient education interventions and strategies in Saudi Arabia, as well as the organizational and policy factors that influence their role as patient educators. Future research should involve nurses, patients, and other stakeholders in the design and implementation of studies, and use rigorous and culturally-appropriate methods to evaluate the outcomes and experiences of patient education.

In conclusion, nurses are essential partners in the healthcare transformation of Saudi Arabia under Vision 2030, and their role in promoting health literacy and preventive care is critical to achieving the goals of improving population health and quality of life. By supporting and empowering nurses as patient educators, healthcare organizations, educators, and policymakers can contribute to a more collaborative, person-centered, and sustainable healthcare system in Saudi Arabia.

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