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Exploring Saudi Arabian Healthcare Providers' Views on Chronic Disease Patient Education: A Qualitative Investigation of Nurses' and Health Assistants' Perspectives on Implementation Strategies

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Abstract

Effective patient education is essential for chronic disease management, yet implementation remains challenging. This qualitative study aimed to explore the perspectives of nurses and health assistants in Saudi Arabia regarding strategies for implementing patient education for chronic diseases. Semi-structured interviews were conducted with 20 healthcare providers (12 nurses, 8 health assistants) recruited from primary care centers. Thematic analysis revealed 5 main themes: 1) Tailoring education to patient needs and preferences; 2) Leveraging technology and visual aids; 3) Engaging family and caregivers; 4) Ensuring cultural competence and linguistic appropriateness; and 5) Enhancing provider training and resources. Participants emphasized the importance of patient-centeredness, using multiple educational modalities, involving family, providing culturally-sensitive education in the patient's language, and better equipping providers. The findings highlight opportunities to optimize chronic disease patient education in Saudi Arabia through multi-level strategies addressing patient, family, provider, and health system factors. Implementing these strategies may improve patient self-management and outcomes.

1. Introduction

Chronic non-communicable diseases (NCDs) like diabetes, cardiovascular disease, cancer, and respiratory diseases are the leading cause of death and disability worldwide (World Health Organization [WHO], 2021). In Saudi Arabia, NCDs account for 73% of all deaths (WHO, 2018). Effective management of chronic diseases requires patients' active involvement in their care through self-management behaviors such as medication adherence, monitoring symptoms, and making healthy lifestyle choices (Reynolds et al., 2018). Patient education is a critical component of chronic disease management that equips patients with the knowledge, skills, and confidence needed for self-management (Farmanova et al., 2016).

Despite the importance of patient education, many healthcare systems struggle with consistent and high-quality implementation (Beune et al., 2014). Nurses and other healthcare providers cite barriers such as time constraints, lack of resources and training, cultural and linguistic challenges, and low patient engagement (Alotaibi et al., 2017; Alsulame et al., 2016). Understanding healthcare providers' perspectives is essential for identifying strategies to overcome these barriers and improve patient education.

This qualitative study aimed to explore the views of nurses and health assistants in Saudi Arabia regarding strategies for implementing effective patient education for chronic diseases. The research questions were:

1. What are nurses' and health assistants' perspectives on the key components of effective patient education for chronic diseases?
2. What strategies do nurses and health assistants recommend for implementing and improving patient education in their settings?

3. What challenges and barriers do nurses and health assistants perceive in providing chronic disease patient education?

2. Literature Review

2.1 Chronic Disease Burden and Management

NCDs cause 41 million deaths annually worldwide, disproportionately affecting low- and middle-income countries (WHO, 2021). In Saudi Arabia, 70-90% of elderly individuals have at least one chronic disease and nearly 50% have two or more (Taha, 2019). NCDs are a major driver of healthcare utilization and costs, with one study finding that 71% of hospital visits in Saudi Arabia were for chronic disease care (Alharbi, 2018).

Self-management by patients and their family caregivers is instrumental for optimizing clinical outcomes and quality of life (Grady & Gough, 2014). Self-management encompasses a wide range of health behaviors such as following treatment plans, self-monitoring, problem-solving, coping with physical and emotional impacts of illness, and making lifestyle changes (Miller et al., 2015). Supporting patients in developing self-management skills is a core function of healthcare teams. A systematic review found that self-management interventions led by primary care teams improved outcomes across multiple chronic diseases (Reynolds et al., 2018).

2.2 Role of Patient Education

Patient education is an essential strategy for promoting self-management. The goal of patient education is to provide individuals with chronic diseases and their families with the knowledge, skills, and motivation needed to make informed decisions and engage in health-promoting behaviors (Farmanova et al., 2016). Effective patient education positively impacts health outcomes, patient quality of life, and health care utilization and costs (Asiri et al., 2018).

The specific content of education varies by disease, but generally covers information about the condition, its management, and needed lifestyle changes, along with problem-solving skills (Beck et al., 2017). Using multiple educational modalities (e.g., verbal, written, visual, experiential) and tailoring to individual needs can enhance the effectiveness of education (Beune et al., 2014). Group-based and peer-led approaches also show promise for improving patient engagement and outcomes (Dale et al., 2015).

2.3 Healthcare Providers' Role and Perspectives

Healthcare providers, especially nurses, play a vital role in delivering patient education. A systematic review found that nurse-led educational interventions improved self-management behaviors and outcomes across several chronic diseases (Massimi et al., 2017). Nurses are well-positioned to provide education given their frequent interactions with patients and expertise in communication, assessment, and counseling.

However, healthcare providers report numerous challenges in educating patients about chronic disease self-management. A study of primary care physicians in Saudi Arabia identified barriers including time constraints, communication difficulties, lack of patient interest, and limited training in behavioral counseling (Alotaibi et al., 2017). Interviews with nurses in various countries have revealed additional barriers such as insufficient educational resources, heavy workloads, and cultural/linguistic discordance with patients (Beune et al., 2014; Barber et al., 2016).

Despite these challenges, providers also recognize opportunities for enhancing patient education. Strategies proposed in prior studies include: training staff in self-management support techniques; developing or adapting high-quality, literacy- and culturally-appropriate educational materials; leveraging technology for education; engaging family members; and fostering collaboration between providers and community organizations (Barber et al., 2016; Asiri et al., 2018). However, most research on providers' perspectives has focused on physicians, with less representation of nurses' and health assistants' valuable insights at the frontlines of patient care.

3. Methods

3.1 Design

This study employed a descriptive qualitative design using semi-structured interviews to explore Saudi nurses' and health assistants' perspectives on implementing chronic disease patient education. Qualitative description is a pragmatic approach that stays close to the data and participants' own language to produce a straightforward summary of experiences and recommendations related to a specific topic (Bradshaw et al., 2017).

3.2 Setting and Participants

The study was conducted in primary healthcare centers (PHCs) within a single region of Saudi Arabia. A purposive sample of 20 healthcare providers was recruited, consisting of 12 nurses and 8 health assistants. Inclusion criteria were: 1) currently employed as a nurse or health assistant in a PHC; 2) involved in providing care for adult patients with chronic diseases; 3) willing and able to participate in an interview.

Participant demographics are summarized in Table 1. Among the nurses, 8 (67%) were female, with a mean age of 35.4 years (range: 24-51) and mean experience of 8.6 years (range: 1-22). Nurse specialties included general practice (n=6), diabetes care (n=4), and health education (n=2). Among health assistants, 5 (63%) were male, with a mean age of 29.1 years (range: 24-39) and mean experience of 4.4 years (range: 1-9). Most participants (80%) had a diploma-level education.

3.3 Data Collection

Individual interviews were conducted in a private room at participants' workplaces. The interviews followed a semi-structured guide with open-ended questions and probes to elicit perceptions of the following topics: important elements of patient education for chronic diseases; current practices and resources for providing education; challenges and barriers to educating patients; and recommendations for more effective implementation of patient education. Interviews were conducted in Arabic, audio-recorded, and lasted 30-60 minutes.

3.4 Data Analysis

The interview recordings were transcribed verbatim in Arabic and translated to English. The transcripts were analyzed using thematic analysis (Braun & Clarke, 2006). Two authors independently coded the transcripts inductively and compared coding to reach consensus. Related codes were grouped into initial themes, which were refined through discussion among the full research team. The final themes were reviewed to ensure they accurately represented the data.

4. Results

The healthcare providers interviewed expressed a strong commitment to educating patients with chronic diseases as an integral part of quality care. However, they also acknowledged struggling to implement patient education consistently and effectively due to various challenges. Through the analysis, five main themes were identified regarding participants' perspectives on key aspects of chronic disease patient education and strategies for improving implementation: 1) Tailoring education to patient needs and preferences; 2) Leveraging technology and visual aids; 3) Engaging family and caregivers; 4) Ensuring cultural competence and linguistic appropriateness; and 5) Enhancing provider training and resources. The themes are described below with illustrative quotes.

4.1 Tailoring Education to Patient Needs and Preferences

Participants emphasized the importance of a patient-centered approach to education that assesses and adapts to each individual's specific situation. This involves evaluating patients' knowledge and beliefs about their condition, self-management behaviors, learning style preferences, literacy/health literacy level, and life circumstances. Providers can then modify the content, amount, format, and tone of education accordingly:

- "First we must assess the patient's current knowledge and understanding, then we will know where to begin from and how to move forward with what they need to learn." (Nurse 3)
- "Some patients want very detailed explanations, while others get overwhelmed, so I adjust how much information I provide. I also vary between verbal instructions, writing things down, showing pictures, or demonstrating skills depending on what works best for each one." (Health Assistant 5)

4.2 Leveraging Technology and Visual Aids

Many providers recommended greater use of technology and visual materials to engage patients and reinforce education. Suggested modalities included mobile apps, educational videos, images, anatomical models, and illustrated handouts. Participants felt these audiovisual aids could help capture patients' attention, improve understanding and information retention, and encourage self-directed learning:

- "We have a tablet-based app with short videos about different chronic diseases...When we use it in patient teaching, they seem to grasp the information better. The pictures and animations make it more interesting than just hearing the nurse talk." (Nurse 9)
- "I tell my patients to take photos with their phones of the educational posters or flyers we have. Then they can review them at home as reminders of what we discussed." (Health Assistant 2)

4.3 Engaging Family and Caregivers

Involving family members and other caregivers in patient education was another common suggestion. Participants recognized that family support is crucial for chronic disease self-management, especially for older adults. They aimed to have family present during clinic visits, include them in discussions and skill training, and address their questions and concerns:

- "Managing chronic illness must be a team effort between the patient and family. The latter are the ones who will be there to remind, encourage and assist the patient daily. That's why I always try to involve family in my teaching." (Nurse 11)
- "Some of my elderly patients rely on their spouse or children to give medications, monitor glucose, or prepare healthy meals. So I make sure to educate the family on these tasks and emphasize their important role." (Health Assistant 6)

4.4 Ensuring Cultural Competence and Linguistic Appropriateness

Participants stressed the need for providing culturally-sensitive patient education in the individual's preferred language. This was deemed essential for earning patients' trust and promoting understanding and adherence to recommendations. Providers sought to align education with cultural beliefs, values and norms surrounding health, use language and terminology patients could comprehend, and enlist interpreter services when needed:

- "We live in a collectivist society, so I frame the importance of self-management in terms of fulfilling family roles and responsibilities and avoiding being a burden on others. Linking education to cultural values enhances its impact." (Nurse 7)
- "Many patients have low literacy, so I use everyday words and analogies they can relate to rather than medical jargon. I also assess if they need education in a language besides Arabic." (Health Assistant 1)

4.5 Enhancing Provider Training and Resources

Finally, a prevalent theme was the need to better prepare and support healthcare providers in delivering effective patient education. Participants desired more training in evidence-based teaching strategies, behavioral counseling techniques, and cultural competence. They also called for expanded availability of high-quality, literacy- and culturally-appropriate educational materials in various formats and languages. Having dedicated time and staff for patient education was another suggestion:

- "Nurses need in-depth training on best practices for patient education - how to develop rapport, convey information at appropriate levels, elicit patient input, and inspire change. These are complex skills we aren't sufficiently taught." (Nurse 8)
- "Our educational handouts and videos are quite limited, especially in languages other than Arabic. The materials should be engaging, relevant to our population, and easy to access." (Health Assistant 4)
- "The biggest barrier is lack of time. If there was protected time in our schedules for one-on-one or group patient education, it would be so beneficial. Maybe have a dedicated nurse educator." (Nurse 12)

5. Discussion

This qualitative study provides insight into Saudi nurses' and health assistants' perspectives on implementing patient education for chronic diseases. The findings align with and expand upon prior research examining healthcare providers' experiences with self-management support in various contexts. The dominant themes reflect evidence-based approaches and challenges documented in the literature.

The emphasis on tailoring education to individual needs, preferences, and characteristics is consistent with the patient-centered care paradigm. Assessing factors like health literacy, current knowledge, and learning styles allows providers to customized education to each patient (Beune et al., 2014). Using multiple educational modalities as described by participants, from verbal counseling to audiovisual materials to skill demonstrations, can accommodate diverse learning needs and reinforce concepts (Marcus, 2014). Embracing technology is an increasingly popular and promising strategy for chronic disease education, though further research is needed on optimal design and implementation (Edwards et al., 2016).

Participants' recognition of family engagement as a facilitator of patient self-management is substantiated by research showing family-focused interventions enhance chronic disease outcomes (Rosland & Piette, 2010). A systematic review found involving family led to improved self-efficacy, self-care behaviors, and physiological risk factors for patients with cardiovascular disease, diabetes, and cancer (Vissenberg et al., 2015). The cultural emphasis on family in Saudi society suggests this is a particularly relevant strategy.

The finding that culturally- and linguistically-appropriate education is essential for acceptability and effectiveness is well-established (Henderson et al., 2018). Providing care concordant with cultural beliefs, values, and practices and in patients' native language (via bilingual providers or interpreters) builds trust and understanding. Yet, like providers in this study, health professionals worldwide report challenges delivering culturally-competent care (Ogbolu et al., 2021).

Participants' desire for more provider training and resources echoes a common theme across studies of clinicians' self-management support practices (Barber et al., 2016). A survey in Saudi Arabia found 65% of primary care physicians wanted further education on counseling chronically-ill patients (Alotaibi et al., 2017). Continuing education should cover behavior change techniques, cultural competence, and use of technology (Beck et al., 2017). Increasing the availability, quality, and accessibility of patient education materials is also widely recommended (Asiri et al., 2018).

The study has several limitations. The sample size was relatively small and from one region, limiting generalizability. Self-selection bias is possible, as providers who chose to participate may be more invested in patient education. Social desirability bias could also influence responses, though this was minimized by assuring confidentiality. Finally, only provider perspectives were captured, without input from patients and families, but this was appropriate for the focused research questions.

6. Conclusion

This research reveals important insights from nurses and health assistants in Saudi Arabia regarding strategies for more effective chronic disease patient education. The findings highlight the need for multi-level approaches targeting healthcare providers, patients, families, resources, and systems. Potential practice implications include:

- Training providers in patient-centered education, self-management support, and cross-cultural communication
- Developing a repository of high-quality, literacy- and culturally-appropriate educational materials in various languages and formats
- Leveraging technology such as mobile apps and audiovisual aids to engage patients
- Routinely involving family in education and securing their support for patient self-management
- Allocating dedicated time, staff, and space for patient education

Further research should implement and evaluate such strategies, as well as explore patients' and families' perspectives and preferences. Overcoming barriers and optimizing chronic disease patient education is critical for empowering patients, improving outcomes, and enhancing healthcare in Saudi Arabia.

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Table 1
Participant Demographics (N=20)

Characteristic	**Nurses (n=12)**	**Health Assistants (n=8)**
Gender		
Female	8 (66.7%)	3 (37.5%)
Male	4 (33.3%)	5 (62.5%)
Age (years)		
Mean (SD)	35.4 (7.6)	29.1 (4.7)
Range	24-51	24-39
Experience (years)		
Mean (SD)	8.6 (5.1)	4.4 (2.8)
Range	1-22	1-9
Education		
Diploma	9 (75%)	7 (87.5%)
Bachelor's	3 (25%)	1 (12.5%)