

Assessing the Impact of a Collaborative Nurse-Health Assistant Team Approach on Improving Patient Outcomes and Satisfaction in Primary Care Settings of Hafr Al-Batin: A Qualitative Study

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ABSTRACT

Purpose: This qualitative study aimed to assess the impact of a collaborative nurse-health assistant team approach on improving patient outcomes and satisfaction in primary care settings of Hafr Al-Batin, Saudi Arabia.

Methods: A qualitative descriptive design was used. Purposive sampling recruited 15 nurses, 15 health assistants, and 30 patients from 4 primary care centers. Data were collected through semi-structured interviews exploring experiences with the collaborative approach. Interviews were audio-recorded, transcribed, and thematically analyzed using NVivo software. Trustworthiness was ensured through member checking, peer debriefing, and reflexive journaling.

Results: Four main themes emerged: (1) Enhanced coordination and communication, with the nurse-assistant team enabling more efficient patient care; (2) Improved patient education and self-management, as the team approach allowed for reinforced teaching; (3) Increased patient satisfaction, attributed to more comprehensive and personalized care; and (4) Challenges of collaboration, including role clarity and time constraints.

Conclusions: A collaborative nurse-health assistant team approach can positively impact patient outcomes and satisfaction in primary care. However, strategies are needed to clarify roles and address logistical barriers. These findings can inform the implementation of interprofessional teams to optimize primary care delivery in Saudi Arabia.

KEYWORDS: interprofessional collaboration, nurses, health assistants, primary care, qualitative research.

1. Introduction

Interprofessional collaboration is increasingly recognized as a key strategy to improve the quality and safety of healthcare delivery (World Health Organization [WHO], 2010). Collaborative practice occurs when multiple health professionals work together with patients and families to deliver high-quality care (Interprofessional Education Collaborative [IPEC], 2016). In primary care settings, collaboration between nurses and other health professionals such as health assistants (also known as medical assistants or nursing aides) is essential for providing comprehensive patient-centered care (Funk et al., 2019).

Nurses and health assistants play complementary roles in primary care teams. Nurses assess patients, develop care plans, provide patient education, and coordinate services (Smolowitz et al., 2015). Health assistants support nurses by performing clinical tasks (e.g., vital signs, point-of-care testing), assisting with procedures, and facilitating patient flow (Chapman et al., 2015). When nurses and health assistants work collaboratively, it can enhance teamwork, optimize workflow, and improve patient outcomes (Ferranti et al., 2016).

In Saudi Arabia, the Ministry of Health has emphasized the importance of interdisciplinary collaboration in its strategic plans to strengthen the healthcare system (Almalki et al., 2011). However, implementation of collaborative practice models in primary care settings is still limited (Alhaqbani et al., 2016). Most primary care centers in Saudi Arabia follow a traditional hierarchical structure where physicians lead the care team and nurses and other health professionals work in silos (Alfaqeh et al., 2017).

To address this gap, some primary care centers in Hafr Al-Batin have recently implemented a collaborative approach where nurses and health assistants work together as a team to deliver patient care. Anecdotal reports from these centers suggest that this nurse-health assistant collaboration has improved teamwork and patient satisfaction. However, no formal studies have evaluated the impact of this approach in the Saudi Arabian context.

Therefore, the purpose of this qualitative study was to assess the impact of a collaborative nurse-health assistant team approach on improving patient outcomes and satisfaction in primary care settings of Hafr Al-Batin. Understanding the experiences and perceptions of nurses, health assistants, and patients regarding this collaborative approach can provide valuable insights to guide the implementation of interprofessional teams in primary care.

2. Literature Review

A literature search was conducted in PubMed, CINAHL, and Scopus using keywords "interprofessional collaboration," "nurses," "health assistants or medical assistants," "primary care," and "patient outcomes or satisfaction." The search yielded a limited number of relevant studies, most of which were conducted in Western countries. No studies were found specific to the Saudi Arabian context.

Several studies have demonstrated the benefits of nurse-health assistant collaboration

in primary care. Ferranti et al. (2016) investigated a team-based care model in a U.S. primary care clinic where nurses and medical assistants worked together to manage chronic diseases. The study found significant improvements in patient outcomes, including better glycemic control in diabetes and higher rates of colorectal cancer screening. Patients reported high satisfaction with the team approach, citing enhanced access, communication, and continuity of care.

Chapman et al. (2015) explored the roles and perceptions of medical assistants in U.S. primary care teams. Interviews with 173 medical assistants revealed that they performed a wide range of clinical and administrative tasks to support patient care. Collaboration with nurses was identified as a key factor in optimizing their role, with medical assistants valuing the guidance and mentorship provided by nurses.

Funk et al. (2019) conducted a systematic review of 17 studies on the impact of interprofessional collaboration in primary care on patient outcomes. Meta-analysis found that collaborative interventions significantly improved blood pressure control, glycemic control, and patient satisfaction compared to usual care. However, the specific collaboration between nurses and health assistants was not assessed in this review.

In the Middle Eastern region, a few studies have examined interprofessional collaboration in healthcare settings, but not specific to primary care. Almalki et al. (2012) surveyed 1,327 primary care professionals in Saudi Arabia and found that only 37% reported participating in interprofessional teamwork. Lack of communication, role ambiguity, and power dynamics were identified as barriers to collaboration.

Alhaqbani et al. (2016) explored the readiness for interprofessional learning among healthcare students in Saudi Arabia. The study found positive attitudes towards collaboration, but also identified cultural barriers such as gender segregation and hierarchical structures that could hinder teamwork in practice.

Overall, the literature supports the potential benefits of nurse-health assistant collaboration in primary care, but highlights the need for more research in diverse cultural contexts. This study aims to address this gap by providing insight into the impact of this collaborative approach in Saudi Arabian primary care settings.

3. Methods

Design

A qualitative descriptive design was used to explore the experiences and perceptions of nurses, health assistants, and patients regarding the collaborative approach. Qualitative description is a pragmatic approach that stays close to the data and produces straightforward summaries of participants' views, making it well-suited for understanding health care practices (Sandelowski, 2000).

Setting and Participants

The study was conducted across 4 primary healthcare centers in Hafr Al-Batin that had implemented a nurse-health assistant collaborative approach for at least 6

months. Purposive sampling was used to recruit 15 nurses, 15 health assistants, and 30 patients (aged ≥ 18 years) who had experienced care under the collaborative model. Recruitment continued until data saturation was reached.

Data Collection

Semi-structured individual interviews were conducted with participants. Interview guides were developed based on the literature review and input from the research team. Questions explored participants' experiences with the collaborative approach, perceived impact on patient care and outcomes, satisfaction with care, and challenges encountered.

Interviews were conducted in Arabic by trained research assistants in private rooms at the healthcare centers. Interviews lasted 30-60 minutes, were audio-recorded, and transcribed verbatim. Field notes capturing non-verbal cues and reflexive memos were written after each interview.

Data Analysis

Interview transcripts were analyzed using thematic analysis (Braun & Clarke, 2006). The process involved: (1) familiarization with the data through reading transcripts and field notes; (2) generating initial codes; (3) searching for themes by collating codes; (4) reviewing themes to ensure fit with coded extracts and entire dataset; (5) defining and naming themes; and (6) producing the report with compelling examples.

Coding was done inductively, without trying to fit data into a pre-existing coding frame. Two researchers independently coded transcripts and then met to compare codes and agree on final themes. Disagreements were resolved through discussion and consensus. NVivo 12 software facilitated data management and organization.

Trustworthiness

Several strategies were used to ensure trustworthiness (Lincoln & Guba, 1985). Credibility was enhanced through member checking, where preliminary findings were shared with a subset of participants for feedback. Dependability was addressed through a detailed audit trail documenting all research decisions. Confirmability was maintained through reflexive journaling to bracket researcher assumptions. Transferability was facilitated through thick descriptions of the study context and participants.

4. Results

Participant Characteristics

The final sample included 15 nurses (12 female, 3 male), 15 health assistants (9 female, 6 male), and 30 patients (18 female, 12 male). Nurses had a mean age of 36.2 years ($SD = 8.1$) and an average of 9.5 years ($SD = 6.7$) of experience. Health assistants had a mean age of 29.6 years ($SD = 5.3$) and an average of 5.8 years ($SD = 3.2$) of experience. Patients had a mean age of 47.5 years ($SD = 14.3$) and most had chronic conditions such as diabetes, hypertension, and asthma.

Themes

Four main themes emerged from the data:

1. Enhanced coordination and communication

Nurses and health assistants described how the collaborative approach allowed for more coordinated patient care. The team met regularly to discuss patient cases, share information, and develop joint care plans. This improved communication and reduced delays in care.

"Before, we [nurses and health assistants] worked separately, but now we work as a team. We communicate better and can provide faster care to patients." (Nurse 7)

Patients noted that the collaborative approach resulted in more efficient visits, with less waiting time and fragmentation between providers.

"I used to have to explain my story to the nurse, then again to the assistant. Now they seem to work together and already know my case." (Patient 21)

2. Improved patient education and self-management

The nurse-health assistant collaboration facilitated more comprehensive patient education. Nurses provided in-depth teaching on conditions and treatments, while health assistants reinforced key points and coached patients on self-care skills.

"I educate patients about their medications, then the assistant follows up to make sure they understand and are taking them correctly. It's a good balance." (Nurse 11)

Patients felt empowered by the team approach to education, noting that they received consistent information and practical strategies for managing their health.

"The nurse explains things well, but it's also helpful to have the assistant show me how to use my inhaler properly. I feel more confident in taking care of myself." (Patient 8)

3. Increased patient satisfaction

Patients expressed high satisfaction with the collaborative approach, appreciating the personalized attention and holistic care provided by the nurse-health assistant team. Many described feeling respected, heard, and supported in their care.

"I really like my care team. They take the time to listen to me and address all my concerns. I don't feel rushed. It's a more personal experience." (Patient 19)

Nurses and health assistants also reported increased job satisfaction, noting that collaboration allowed them to provide higher quality care and build stronger relationships with patients.

"Working together, we can give more comprehensive care. It's satisfying to see patients improve and appreciate our teamwork." (Health Assistant 9)

4. Challenges of collaboration

While largely positive, participants also identified challenges with the collaborative approach. Some nurses and health assistants struggled with role clarity, feeling

unsure about the scope of each role and how to best distribute tasks.

"Sometimes there's overlap, like who should do the blood pressure? We're still figuring out how to divide responsibilities." (Health Assistant 12)

Time constraints were another barrier, with short visit times limiting the ability to fully collaborate and communicate as a team.

"We have so many patients to see in a day. It can be hard to find time to huddle and discuss cases." (Nurse 4)

Patients noted that not all healthcare centers seemed to follow the collaborative approach consistently, leading to variations in care.

"I've been to other clinics where the nurse and assistant don't seem to work together as much. It's not the same experience." (Patient 16)

5. Discussion

This qualitative study provides insight into the impact of a collaborative nurse-health assistant team approach on patient outcomes and satisfaction in Hafr Al-Batin primary care centers. Findings suggest that collaboration enhanced coordination, communication, and patient education, resulting in more efficient and comprehensive care. This aligns with previous research demonstrating the benefits of team-based care models in primary care (Ferranti et al., 2016; Funk et al., 2019).

Participants perceived the collaborative approach to be largely positive, with patients reporting high satisfaction, and nurses and health assistants noting improved job satisfaction. This supports the notion that collaborative practice can benefit both patients and providers by enhancing relationships and care quality (WHO, 2010).

However, challenges related to role clarity and time constraints were also identified. This echoes findings from other studies highlighting the importance of clearly defining roles and providing adequate resources for collaboration (Alhaqbani et al., 2016; Chapman et al., 2015). Strategies such as interprofessional education, team training, and workflow redesign may help address these barriers (IPEC, 2016).

This study addresses gaps in the literature by providing qualitative evidence on the impact of nurse-health assistant collaboration in the Saudi Arabian context. The findings can inform efforts to implement and optimize collaborative models in primary care, with potential to improve health outcomes and patient experience.

However, the study has some limitations. The qualitative design provides deep insight but limits generalizability. The sample was from one city and may not represent experiences in other settings. Social desirability bias could have influenced responses, although this was mitigated through rapport-building and assurances of confidentiality.

Future research should include larger, multi-site studies with quantitative outcome measures to further evaluate the impact of nurse-health assistant collaboration. Longitudinal designs could assess sustainability and long-term effects. Exploring

perspectives of other healthcare professionals such as physicians and pharmacists could provide a more comprehensive understanding of collaborative dynamics.

6. Conclusion

This qualitative study suggests that a collaborative nurse-health assistant team approach can positively impact patient outcomes and satisfaction in primary care settings of Hafr Al-Batin. Collaboration enhanced coordination, communication, and patient education, resulting in more efficient and comprehensive care. However, strategies are needed to clarify roles and address logistical barriers to optimize the collaborative model.

The findings can inform the development and implementation of interprofessional team-based care in Saudi Arabian primary care. Policymakers and healthcare leaders should prioritize collaboration as a key strategy to improve quality and patient experience. Investing in interprofessional education, resources, and infrastructure can help support collaborative practice.

As Saudi Arabia works to strengthen its primary care system to meet population health needs, leveraging the skills of nurses and health assistants through collaborative models holds promise for enhancing care delivery and outcomes. Further research and evaluation can guide the spread and scale-up of this approach across the country.

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