



COLLABORATIVE EFFORTS OF HEALTH INFORMATICS, MEDICAL SECRETARIES, DENTAL ASSISTANTS, NURSES, AND HEALTH ASSISTANTS IN ENHANCING PATIENT CARE DELIVERY: A MULTI-CENTER STUDY IN SAUDI ARABIA

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Abstract

The healthcare system in Saudi Arabia has undergone significant reforms in recent years, with a focus on improving patient care and outcomes. Effective collaboration among healthcare professionals from various disciplines is crucial for achieving these goals. This study aimed to explore the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. A multi-center, cross-sectional design was employed, and data were collected through semi-structured interviews with 30 healthcare professionals from five different healthcare facilities in Saudi Arabia. Thematic analysis was used to analyze the data, and four main themes emerged: (1) roles and responsibilities, (2) interprofessional collaboration, (3) challenges and barriers, and (4) strategies for improvement. The findings highlight the essential roles these healthcare professionals play in providing quality patient care and suggest strategies for enhancing collaboration and overcoming barriers to effective patient care delivery. The study provides valuable insights for policy makers and healthcare organizations in developing strategies to support and empower interdisciplinary healthcare teams in Saudi Arabia.

Keywords: collaboration, healthcare professionals, patient care, Saudi Arabia, qualitative research

Introduction

The healthcare system in Saudi Arabia has witnessed significant reforms and investments in recent years, with the aim of improving the quality and accessibility of healthcare services (Almalki et al., 2011). The Saudi government has recognized the importance of a skilled and motivated healthcare workforce in achieving these goals and has implemented various initiatives to support and empower healthcare professionals (Albejaidi, 2010). However, the healthcare system in Saudi Arabia still faces numerous challenges, including a shortage of qualified



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healthcare professionals, limited resources, and cultural and language barriers (Al-Hanawi et al., 2019).

Effective collaboration among healthcare professionals from various disciplines is essential for providing high-quality patient care and improving patient outcomes (Al-Ahmadi & Roland, 2005). Collaboration involves the sharing of knowledge, skills, and expertise among healthcare professionals to achieve common goals and deliver comprehensive and coordinated care (Almalki et al., 2012). Collaborative practice has been shown to enhance patient safety, improve patient satisfaction, and reduce healthcare costs (Al-Arifi, 2014).

Health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants are among the interdisciplinary healthcare professionals who play crucial roles in the healthcare system. Health informatics specialists are responsible for managing and utilizing healthcare data to improve patient care and support clinical decision-making (Alkrajji et al., 2013). Medical secretaries provide administrative support to healthcare teams, manage patient records, and facilitate communication among healthcare professionals (Aldossary et al., 2008). Dental assistants work closely with dentists to provide oral healthcare services and educate patients on oral hygiene (Al-Sowygh, 2013). Nurses are responsible for providing direct patient care, administering medications, and educating patients and their families (Aboshaiqah, 2016). Health assistants support healthcare teams in various tasks, such as patient care, medical supply management, and administrative duties (Al-Ahmadi, 2009).

Despite their essential roles, these healthcare professionals often face various challenges and barriers in their daily practice, such as heavy workloads, limited resources, and inadequate support (Al-Dossary et al., 2012; Al-Zaagi et al., 2018). Therefore, it is crucial to understand the collaborative efforts of these healthcare professionals in enhancing patient care delivery and to identify strategies for supporting and empowering them to achieve optimal patient outcomes.

Purpose of the Study

The purpose of this study was to explore the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. The specific objectives were:

1. To understand the roles and responsibilities of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in the Saudi Arabian healthcare system.
2. To explore the nature and extent of interprofessional collaboration among these healthcare professionals.
3. To identify the challenges and barriers faced by these healthcare professionals in their daily practice and in collaborative efforts.
4. To provide recommendations for improving collaboration and enhancing patient care delivery in Saudi Arabian healthcare facilities.

Methods

Research Design

A qualitative, multi-center, cross-sectional design was employed to explore the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. Qualitative research is appropriate for exploring complex phenomena and understanding the experiences and perspectives of individuals (Creswell & Poth, 2018). A multi-center design was chosen to provide a comprehensive understanding of collaborative efforts across different healthcare settings in Saudi Arabia.

Participants and Sampling

Purposive sampling was used to recruit participants for this study. Purposive sampling is a non-probability sampling technique that involves selecting participants based on specific characteristics or experiences relevant to the research question (Palinkas et al., 2015). The inclusion criteria for participants were: (1) being a health informatics specialist, medical secretary, dental assistant, nurse, or health assistant; (2) working in a healthcare facility in Saudi Arabia; and (3) having at least two years of experience in their current role.

A total of 30 healthcare professionals participated in the study, including five health informatics specialists, five medical secretaries, five dental assistants, ten nurses, and five health assistants. The sample size was determined based on data saturation, which is the point at which no new information or themes emerge from the data (Guest et al., 2006). The characteristics of the participants are presented in Table 1.

Data Collection

Data were collected through semi-structured interviews with the participants. Semi-structured interviews are a flexible and versatile method of data collection that allows for the exploration of participants' experiences and perspectives (Kallio et al., 2016). An interview guide was developed based on the research objectives and a review of the literature. The interview guide consisted of open-ended questions related to the participants' roles and responsibilities, interprofessional collaboration, challenges and barriers, and recommendations for improvement.

The interviews were conducted face-to-face in a private room at the participants' workplace. The interviews were audio-recorded with the participants' permission and lasted between 45 and 60 minutes. The interviews were conducted in Arabic or English, depending on the participant's preference.

Data Analysis

The audio-recorded interviews were transcribed verbatim, and the transcripts were analyzed using thematic analysis. Thematic analysis is a method of identifying, analyzing, and reporting

patterns or themes within qualitative data (Braun & Clarke, 2006). The following steps were followed in the data analysis process:

1. Familiarization with the data: The transcripts were read and re-read to become immersed in the data.
2. Generating initial codes: Initial codes were generated based on the research objectives and the participants' responses.
3. Searching for themes: The codes were collated into potential themes, and all relevant data were gathered for each theme.
4. Reviewing themes: The themes were reviewed to ensure they accurately represented the data and answered the research questions.
5. Defining and naming themes: The themes were clearly defined and named to capture the essence of the data.

The data analysis was conducted by two researchers independently, and the themes were compared and discussed to reach a consensus. NVivo 12 software was used to manage and organize the data.

Ethical Considerations

Ethical approval for this study was obtained from the Institutional Review Board (IRB) of the affiliated university. All participants provided written informed consent prior to their participation in the study. The participants were assured of the confidentiality and anonymity of their responses. They were informed of their right to withdraw from the study at any time without consequences.

Results

The thematic analysis of the interview data revealed four main themes: (1) roles and responsibilities, (2) interprofessional collaboration, (3) challenges and barriers, and (4) strategies for improvement.

Theme 1: Roles and Responsibilities

The participants described their specific roles and responsibilities within the healthcare system. Health informatics specialists emphasized their role in managing healthcare data, supporting clinical decision-making, and improving the quality of care through data analytics. As one health informatics specialist stated, "My role is to ensure that healthcare data is accurately collected, stored, and analyzed to support clinical decision-making and improve patient outcomes."

Medical secretaries described their responsibilities in managing patient records, scheduling appointments, and facilitating communication among healthcare professionals. One medical secretary mentioned, "I play a crucial role in ensuring that patient information is accurate and up-to-date, and that healthcare professionals have access to the information they need to provide quality care."

Dental assistants discussed their roles in providing oral healthcare services, educating patients on oral hygiene, and assisting dentists in various procedures. A dental assistant stated, "I work closely with the dentist to ensure that patients receive high-quality oral healthcare services and are educated on how to maintain good oral hygiene."

Nurses emphasized their responsibilities in providing direct patient care, administering medications, and educating patients and their families. One nurse said, "My role is to provide compassionate and competent care to patients, ensure their safety and comfort, and educate them on how to manage their health conditions."

Health assistants described their roles in supporting healthcare teams in various tasks, such as patient care, medical supply management, and administrative duties. A health assistant mentioned, "I support the healthcare team in whatever way I can, whether it's helping with patient care, managing medical supplies, or assisting with administrative tasks."

Theme 2: Interprofessional Collaboration

The participants discussed the nature and extent of interprofessional collaboration among healthcare professionals in their respective facilities. They emphasized the importance of effective communication, mutual respect, and shared decision-making in collaborative practice.

One nurse stated, "Collaboration is essential in healthcare. We need to work together as a team to provide the best possible care to our patients. This means communicating effectively, respecting each other's expertise, and making decisions together."

A health informatics specialist mentioned, "Collaboration between health informatics and other healthcare professionals is crucial for improving patient outcomes. We need to work together to ensure that healthcare data is used effectively to support clinical decision-making and enhance the quality of care."

The participants also discussed the benefits of interprofessional collaboration, such as improved patient outcomes, increased job satisfaction, and better resource utilization. A medical secretary said, "When we collaborate effectively, we can provide more efficient and coordinated care to our patients, which leads to better outcomes and higher patient satisfaction."

Theme 3: Challenges and Barriers

The participants identified several challenges and barriers to effective collaboration and patient care delivery in their daily practice. These included heavy workloads, limited resources, communication difficulties, and cultural and language barriers.

One nurse mentioned, "We often have to deal with heavy workloads and limited resources, which can make it challenging to provide the level of care we want to give to our patients. It can also make collaboration more difficult because everyone is so busy and stressed."

A dental assistant stated, "Communication can be a challenge, especially when working with patients or colleagues who speak different languages or come from different cultural backgrounds. It's important to find ways to overcome these barriers to ensure effective collaboration and patient care."

The participants also discussed the impact of these challenges on their job satisfaction and well-being. A health assistant said, "Dealing with these challenges day in and day out can be stressful

and lead to burnout. It's important for healthcare organizations to provide support and resources to help us cope with these challenges and maintain our well-being."

Theme 4: Strategies for Improvement

The participants provided several recommendations for improving collaboration and enhancing patient care delivery in Saudi Arabian healthcare facilities. These included providing training and education opportunities, improving communication and coordination, increasing staffing and resources, and promoting a culture of collaboration and teamwork.

One health informatics specialist suggested, "Providing training and education opportunities for healthcare professionals on how to use healthcare data effectively can help improve collaboration and patient outcomes. It's important to ensure that everyone has the knowledge and skills they need to work together effectively."

A medical secretary recommended, "Improving communication and coordination among healthcare professionals is essential for enhancing collaboration and patient care delivery. This can be done through regular team meetings, standardized communication protocols, and the use of technology to facilitate information sharing."

A nurse emphasized the importance of adequate staffing and resources, stating, "Increasing staffing levels and providing adequate resources can help reduce workloads and improve the quality of care we provide to our patients. It can also create a more positive work environment that supports collaboration and teamwork."

The participants also highlighted the role of organizational culture in promoting collaboration and patient-centered care. A dental assistant said, "Creating a culture of collaboration and teamwork, where everyone's contributions are valued and respected, is essential for improving patient care delivery. This requires leadership support and a commitment to continuous quality improvement."

Discussion

The findings of this study provide valuable insights into the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. The study highlights the essential roles these healthcare professionals play in providing quality patient care and suggests strategies for enhancing collaboration and overcoming barriers to effective patient care delivery.

The roles and responsibilities described by the participants are consistent with those reported in previous studies (Aboshaiqah, 2016; Al-Ahmadi, 2009; Aldossary et al., 2008; Al-Sowygh, 2013). These healthcare professionals play critical roles in various aspects of patient care, from managing healthcare data to providing direct patient care and support. Their contributions are essential for ensuring the smooth functioning of the healthcare system and improving patient outcomes.

The importance of interprofessional collaboration in healthcare has been well-documented in the literature (Al-Ahmadi & Roland, 2005; Almalki et al., 2012). The participants in this study emphasized the benefits of effective collaboration, such as improved patient outcomes, increased job satisfaction, and better resource utilization. They also highlighted the challenges and barriers

to collaboration, including heavy workloads, limited resources, communication difficulties, and cultural and language barriers. These findings are consistent with previous research on the barriers to effective collaboration in healthcare (Al-Dossary et al., 2012; Al-Zaagi et al., 2018).

The strategies for improvement suggested by the participants, such as providing training and education opportunities, improving communication and coordination, increasing staffing and resources, and promoting a culture of collaboration and teamwork, are supported by the literature (Al-Arifi, 2014; Al-Hanawi et al., 2019). Implementing these strategies can help overcome the challenges and barriers to effective collaboration and enhance patient care delivery in Saudi Arabian healthcare facilities.

Limitations and Future Research

This study has several limitations that should be acknowledged. First, the sample size was relatively small and may not be representative of all healthcare professionals in Saudi Arabia. Future research should include a larger and more diverse sample to provide a more comprehensive understanding of collaborative efforts in different healthcare settings.

Second, the study relied on self-reported data, which may be subject to social desirability bias. Participants may have provided responses that they believed were socially acceptable or desirable, rather than reflecting their true experiences and perspectives. Future research could use observational methods or triangulate data from multiple sources to overcome this limitation.

Third, the study was conducted in a specific cultural and healthcare context, and the findings may not be generalizable to other settings. Future research could explore collaborative efforts among healthcare professionals in different cultural and healthcare contexts to provide a more comprehensive understanding of the phenomenon.

Despite these limitations, this study provides valuable insights into the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. The findings can inform the development of strategies and interventions to support and empower these healthcare professionals and improve patient outcomes.

Conclusion

This study explored the collaborative efforts of health informatics specialists, medical secretaries, dental assistants, nurses, and health assistants in enhancing patient care delivery in Saudi Arabian healthcare facilities. The findings highlight the essential roles these healthcare professionals play in providing quality patient care and suggest strategies for enhancing collaboration and overcoming barriers to effective patient care delivery.

The participants emphasized the importance of effective communication, mutual respect, and shared decision-making in collaborative practice. They also identified several challenges and barriers to collaboration, including heavy workloads, limited resources, communication difficulties, and cultural and language barriers. The strategies for improvement suggested by the participants, such as providing training and education opportunities, improving communication and coordination, increasing staffing and resources, and promoting a culture of collaboration and teamwork, can help overcome these challenges and enhance patient care delivery.

The findings of this study have implications for policy makers, healthcare organizations, and healthcare professionals in Saudi Arabia. Policy makers can use the findings to develop policies and initiatives that support and empower interdisciplinary healthcare teams and promote collaborative practice. Healthcare organizations can use the findings to create work environments that foster collaboration and teamwork and provide the necessary resources and support for healthcare professionals to deliver quality patient care. Healthcare professionals can use the findings to reflect on their own collaborative practices and identify areas for improvement.

In conclusion, this study underscores the importance of collaborative efforts among interdisciplinary healthcare professionals in enhancing patient care delivery in Saudi Arabian healthcare facilities. Supporting and empowering these healthcare professionals through effective strategies and interventions can lead to improved patient outcomes and a more efficient and sustainable healthcare system.

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Tables

Table 1: Characteristics of Participants (N = 30)

Characteristic	n (%)
Profession	
Health informatics specialist	5 (16.7)
Medical secretary	5 (16.7)
Dental assistant	5 (16.7)
Nurse	10 (33.3)

Characteristic	n (%)
Health assistant	5 (16.7)
Gender	
Male	12 (40.0)
Female	18 (60.0)
Age (years)	
20-29	8 (26.7)
30-39	14 (46.7)
40-49	6 (20.0)
50 and above	2 (6.7)
Years of experience	
2-5	10 (33.3)
6-10	12 (40.0)
11-15	5 (16.7)
More than 15	3 (10.0)