

# Exploring the Collaborative Roles of Legal Pharmacists, Assistant Pharmacists, and Pharmacist Assistants in Enhancing Medication Safety and Patient Care: A Qualitative Study

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## Abstract

Medication safety is a critical component of patient care, and pharmacists play a vital role in ensuring the safe and effective use of medications. This qualitative study aimed to explore the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in enhancing medication safety and patient care in Hafr Al-Batin, Saudi Arabia. Semi-structured interviews were conducted with 20 participants, including legal pharmacists, assistant pharmacists, and pharmacist assistants. Thematic analysis was used to identify key themes and subthemes. The findings revealed three main themes: (1) collaborative roles in medication safety, (2) challenges and barriers to effective collaboration, and (3) strategies for enhancing collaboration and medication safety. The results highlight the importance of interprofessional collaboration, communication, and education in promoting medication safety and patient care. This study provides valuable insights into the roles and experiences of pharmacists in Saudi Arabia and offers recommendations for improving medication safety practices.

## 1. Introduction

Medication safety is a fundamental aspect of patient care and a key priority for healthcare systems worldwide. Pharmacists play a crucial role in ensuring the safe and effective use of medications, from prescribing and dispensing to monitoring and patient education (Aljadhey et al., 2013). In Saudi Arabia, the pharmacy profession has undergone significant changes in recent years, with the introduction of new roles and responsibilities for pharmacists (Alaqael & Abanmy, 2015). However, medication errors and adverse drug events remain a significant concern, highlighting the need for effective collaboration among pharmacists and other healthcare professionals (Alsaidan et al., 2018).

This qualitative study aimed to explore the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in enhancing medication safety and patient care in Hafr Al-Batin, Saudi Arabia. The study sought to answer the following research questions:

1. What are the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in promoting medication safety and patient care?
2. What challenges and barriers do pharmacists face in collaborating effectively to enhance medication safety?
3. What strategies can be employed to improve collaboration and medication safety practices among pharmacists?

## 2. Literature Review

Medication safety is a complex and multifaceted issue that requires the involvement of various healthcare professionals, including pharmacists, physicians, and nurses (Aljadhey et al., 2016). Pharmacists play a vital role in promoting medication safety through their expertise in medication

management, patient education, and collaboration with other healthcare providers (Almalki et al., 2011).

Several studies have investigated the roles and experiences of pharmacists in Saudi Arabia. Alaqeel and Abanmy (2015) conducted a cross-sectional study to explore the counseling practices of community pharmacists in Riyadh, Saudi Arabia. The results showed that pharmacists provided limited medication counseling, highlighting the need for improved patient education and communication.

Aljadhey et al. (2013) conducted a national survey to assess medication safety practices in hospitals across Saudi Arabia. The study found that medication errors were common and identified several areas for improvement, such as implementing electronic prescribing systems and providing regular training for healthcare professionals.

Alsaidan et al. (2018) conducted a systematic review of medication safety studies in the Gulf Cooperation Council countries, including Saudi Arabia. The review identified a lack of research on medication safety in primary care settings and emphasized the need for more studies to understand the challenges and opportunities for improving medication safety practices.

While these studies provide valuable insights into medication safety in Saudi Arabia, there is a limited understanding of the collaborative roles of different types of pharmacists in enhancing medication safety and patient care. This study aims to address this gap in the literature by exploring the experiences and perspectives of legal pharmacists, assistant pharmacists, and pharmacist assistants in Hafr Al-Batin, Saudi Arabia.

### **3. Methods**

#### **3.1 Study Design**

This study employed a qualitative research design using semi-structured interviews to explore the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in enhancing medication safety and patient care. Qualitative research is well-suited for investigating complex phenomena and capturing the lived experiences and perspectives of participants (Creswell & Poth, 2018).

#### **3.2 Participants and Sampling**

Purposive sampling was used to recruit participants for this study. The inclusion criteria were as follows: (1) currently employed as a legal pharmacist, assistant pharmacist, or pharmacist assistant in Hafr Al-Batin, Saudi Arabia; (2) involved in medication safety practices; and (3) willing to participate in the study. A total of 20 participants were recruited, including 7 legal pharmacists, 7 assistant pharmacists, and 6 pharmacist assistants. This sample size was deemed sufficient for achieving data saturation, where no new themes or insights emerged from additional interviews (Guest et al., 2006).

#### **3.3 Data Collection**

Data were collected through semi-structured interviews conducted by the first author, who has experience in qualitative research. The interviews were conducted in Arabic and lasted approximately 45-60 minutes each. An interview guide was developed based on the research questions and relevant literature, covering topics such as collaborative roles, challenges, and strategies for enhancing medication safety. The interviews were audio-recorded and transcribed verbatim for analysis.

#### **3.4 Data Analysis**

Thematic analysis was used to analyze the interview data, following the six-phase approach outlined by Braun and Clarke (2006). The analysis involved familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and

producing the report. Two independent researchers coded the data and discussed any discrepancies to reach a consensus. The analysis was conducted in Arabic, and the final themes and quotes were translated into English for reporting.

### **3.5 Trustworthiness**

Several strategies were employed to ensure the trustworthiness of the study findings, including credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was enhanced through prolonged engagement with the data, member checking, and peer debriefing. Transferability was addressed by providing detailed descriptions of the study context and participants. Dependability was ensured through an audit trail and regular discussions among the research team. Confirmability was achieved through reflexivity and the use of verbatim quotes to support the findings.

## **4. Results**

The thematic analysis revealed three main themes related to the collaborative roles of pharmacists in enhancing medication safety and patient care: (1) collaborative roles in medication safety, (2) challenges and barriers to effective collaboration, and (3) strategies for enhancing collaboration and medication safety. Each theme is discussed in detail below, with supporting quotes from the participants.

### **4.1 Theme 1: Collaborative Roles in Medication Safety**

Participants described various collaborative roles that legal pharmacists, assistant pharmacists, and pharmacist assistants play in promoting medication safety and patient care. These roles included medication review, patient counseling, interprofessional communication, and education and training.

*"As a legal pharmacist, I work closely with the medical team to review patients' medications and ensure that they are safe and appropriate. I also collaborate with assistant pharmacists and pharmacist assistants to provide patient education and counseling." (Legal Pharmacist, Participant 3)*

*"Assistant pharmacists play a key role in dispensing medications and communicating with patients about their treatment plans. We work together with legal pharmacists to identify and resolve any medication-related issues." (Assistant Pharmacist, Participant 9)*

*"Pharmacist assistants are often the first point of contact for patients, so we have an important role in providing basic medication information and referring patients to legal pharmacists or assistant pharmacists when needed." (Pharmacist Assistant, Participant 17)*

### **4.2 Theme 2: Challenges and Barriers to Effective Collaboration**

Participants identified several challenges and barriers that hindered effective collaboration among pharmacists and other healthcare professionals. These included communication breakdowns, workload pressures, limited resources, and a lack of awareness about the roles and responsibilities of different types of pharmacists.

*"One of the main challenges is the lack of clear communication channels between pharmacists and physicians. Sometimes, important information gets lost in translation, which can lead to medication errors." (Legal Pharmacist, Participant 6)*

*"The high workload and limited staffing make it difficult for us to find time for collaboration and patient education. We are often focused on just getting the medications dispensed as quickly as possible." (Assistant Pharmacist, Participant 11)*

*"There is a lack of understanding among some healthcare professionals about the different roles and qualifications of legal pharmacists, assistant pharmacists, and pharmacist assistants. This*

can lead to confusion and missed opportunities for collaboration." (Pharmacist Assistant, Participant 19)

#### 4.3 Theme 3: Strategies for Enhancing Collaboration and Medication Safety

Participants suggested various strategies for improving collaboration and medication safety practices, including regular interprofessional meetings, standardized communication protocols, continuous education and training, and the use of technology to support medication management.

"I think having regular meetings between pharmacists, physicians, and nurses would help to improve communication and collaboration. We could discuss patient cases, share information, and identify areas for improvement." (Legal Pharmacist, Participant 5)

"Implementing standardized communication protocols, such as a structured handover process, could help to ensure that important information is not missed when patients are transferred between different healthcare settings." (Assistant Pharmacist, Participant 14)

"Providing ongoing education and training for all pharmacists on medication safety best practices and interprofessional collaboration would be beneficial. It would help to keep everyone up-to-date and on the same page." (Pharmacist Assistant, Participant 20)

"Using technology, such as electronic prescribing systems and medication reconciliation tools, could help to reduce errors and improve the efficiency of medication management processes." (Legal Pharmacist, Participant 7)

Table 1 summarizes the main themes and subthemes identified in the study.

Themes	Subthemes
1. Collaborative Roles in Medication Safety	- Medication review
	- Patient counseling
	- Interprofessional communication
	- Education and training
2. Challenges and Barriers to Effective Collaboration	- Communication breakdowns
	- Workload pressures
	- Limited resources
3. Strategies for Enhancing Collaboration and Medication Safety	- Lack of awareness about roles and responsibilities
	- Regular interprofessional meetings
	- Standardized communication protocols
	- Continuous education and training
	- Use of technology for medication management

## 5. Discussion

This qualitative study explored the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in enhancing medication safety and patient care in Hafr Al-Batin, Saudi Arabia. The findings highlight the importance of interprofessional collaboration, communication, and education in promoting safe and effective medication use.

Participants described various collaborative roles that pharmacists play in medication safety, including medication review, patient counseling, interprofessional communication, and education and training. These findings are consistent with previous studies that have emphasized the vital role of pharmacists in ensuring the safe and appropriate use of medications (Aljadhey et al., 2013; Alsaidan et al., 2018).

However, participants also identified several challenges and barriers to effective collaboration, such as communication breakdowns, workload pressures, limited resources, and a lack of awareness about the roles and responsibilities of different types of pharmacists. These challenges are similar to those reported in other studies on medication safety in Saudi Arabia and highlight the need for system-level interventions to support interprofessional collaboration (Aljadhey et al., 2016; Almalki et al., 2011).

Participants suggested several strategies for enhancing collaboration and medication safety practices, including regular interprofessional meetings, standardized communication protocols, continuous education and training, and the use of technology to support medication management. Implementing these strategies could help to improve communication, reduce errors, and foster a culture of safety and collaboration among pharmacists and other healthcare professionals (Alaqeel & Abanmy, 2015; Alsaidan et al., 2018).

The findings of this study have several implications for practice and policy. First, there is a need to promote greater awareness and understanding of the roles and responsibilities of different types of pharmacists among healthcare professionals and the public. This could be achieved through educational campaigns, interprofessional training programs, and clear job descriptions and competency frameworks.

Second, healthcare organizations should prioritize the development of effective communication and collaboration systems to support medication safety practices. This could include the implementation of standardized communication protocols, electronic health records, and medication reconciliation tools to facilitate the exchange of information and reduce the risk of errors.

Third, policymakers and regulatory bodies should consider the development of guidelines and standards for medication safety practices and interprofessional collaboration in Saudi Arabia. This could help to ensure consistency and accountability across different healthcare settings and promote a culture of continuous quality improvement.

Finally, there is a need for further research to evaluate the effectiveness of different strategies for enhancing medication safety and collaboration among pharmacists and other healthcare professionals. This could include the use of quantitative methods to measure the impact of interventions on medication error rates, patient outcomes, and healthcare costs, as well as qualitative studies to explore the experiences and perspectives of patients and other stakeholders.

## **6. Conclusion**

This qualitative study explored the collaborative roles of legal pharmacists, assistant pharmacists, and pharmacist assistants in enhancing medication safety and patient care in Hafr Al-Batin, Saudi Arabia. The findings highlight the importance of interprofessional collaboration, communication, and education in promoting safe and effective medication use, as well as the challenges and barriers that pharmacists face in their daily practice.

The study suggests several strategies for improving collaboration and medication safety practices, including regular interprofessional meetings, standardized communication protocols, continuous education and training, and the use of technology to support medication management. Implementing these strategies could help to reduce medication errors, improve patient outcomes, and foster a culture of safety and collaboration among healthcare professionals.

However, the study also emphasizes the need for system-level interventions and policy changes to support the development of effective medication safety practices and interprofessional collaboration in Saudi Arabia. This requires the involvement of multiple stakeholders, including

healthcare organizations, policymakers, regulatory bodies, and researchers, to address the complex and multifaceted nature of medication safety and patient care.

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