

Pharmacists 'Experiences and Contributions to Patient-Centered Care in Multidisciplinary Teams: A Qualitative Study in a Tertiary Hospital

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Abstract

Objective: This study explores pharmacists 'experiences in multidisciplinary teams within a tertiary hospital, focusing on their role in delivering patient-centered care and improving patient outcomes.

Methods: A qualitative study using semi-structured interviews was conducted with 15 pharmacists involved in multidisciplinary care. Thematic analysis was used to identify key themes, including pharmacists ' perceptions of their roles, communication challenges, and opportunities for enhancing collaboration.

Results: Pharmacists viewed themselves as essential contributors to medication management, but faced barriers such as hierarchical communication issues and heavy workloads. Despite these challenges, opportunities for improving their involvement through interprofessional education and technology integration were identified.

Conclusion: Pharmacists play a vital role in patient-centered care within multidisciplinary teams, though systemic barriers limit their full participation. Addressing these challenges can enhance their contributions to patient care and outcomes.

Keywords: Pharmacists, multidisciplinary teams, patient-centered care, tertiary hospital, interprofessional collaboration, qualitative research.

Introduction

Patient-centered care has become a central tenet in modern healthcare, emphasizing the importance of addressing individual patient needs, preferences, and values to achieve optimal clinical outcomes. It requires collaborative efforts from all healthcare professionals, including pharmacists, who play a pivotal role in ensuring the safe and effective use of medications. In tertiary hospital settings, where the complexity of patient care is heightened, the need for cohesive teamwork within multidisciplinary teams becomes essential to deliver patient-centered care (Institute of Medicine, 2001).

Multidisciplinary teams, typically consisting of physicians, nurses, pharmacists, and other allied health professionals, work together to provide holistic care that considers all aspects of the patient's condition. Pharmacists, as medication experts, contribute to these teams by optimizing pharmacotherapy, managing drug interactions, and ensuring medication safety (Makowsky et al., 2009). Their involvement has been shown to enhance patient outcomes by reducing medication errors and improving adherence to treatment plans, particularly in high-risk and complex cases (Kaboli et al., 2006).

Despite the recognized benefits of pharmacists' contributions, there remains a gap in understanding how pharmacists perceive their role within multidisciplinary teams, particularly in the context of delivering patient-centered care. Existing literature often focuses on quantitative measures of pharmacists' impact, such as reduced adverse drug events, but fewer studies explore pharmacists' personal experiences and perceptions regarding their collaborative role in patient care (Pellegrino et al., 2009).

This study aims to fill this gap by examining pharmacists' experiences within multidisciplinary teams in a tertiary hospital setting. Specifically, the research seeks to understand how pharmacists collaborate with other healthcare professionals to deliver patient-centered care and how they perceive their contributions to improving patient outcomes. By exploring these perspectives, the study hopes to provide insights into the challenges and opportunities pharmacists face in optimizing patient care through teamwork.

Research Objectives

- To explore how pharmacists perceive their role within multidisciplinary teams in a tertiary hospital.
- To understand how pharmacists' collaboration with other healthcare professionals impacts the delivery of patient-centered care.
- To identify challenges and opportunities for enhancing pharmacists' contributions to patient-centered care in multidisciplinary teams.

Research Questions

- How do pharmacists perceive their role in multidisciplinary teams?
- What are the challenges and opportunities pharmacists experience when delivering patient-centered care?
- How does pharmacists' collaboration within teams contribute to improved patient outcomes?

By addressing these questions, this study will contribute to a deeper understanding of the evolving role of pharmacists in patient-centered care within tertiary healthcare settings, providing potential recommendations for enhancing interprofessional collaboration.

Literature Review

1. Patient-Centered Care in Healthcare

Patient-centered care has been defined as a care model that respects and responds to individual patient preferences, needs, and values, ensuring that patient values guide all clinical decisions (Institute of Medicine, 2001). This model emphasizes the holistic involvement of patients in their own care, moving away from the traditionally paternalistic healthcare approaches to one that fosters shared decision-making. Numerous studies have demonstrated that patient-centered care is associated with improved patient satisfaction, better adherence to treatments, and overall enhanced clinical outcomes (Epstein & Street, 2011). However, delivering patient-centered care in complex healthcare settings, such as tertiary hospitals, often requires the integration of multidisciplinary care teams, which include pharmacists, to address the multifaceted needs of patients.

2. The Role of Multidisciplinary Teams in Tertiary Hospitals

Multidisciplinary teams are integral to patient care in tertiary hospitals, where patients often present with complex conditions that require input from various healthcare professionals. These teams typically consist of physicians, nurses, pharmacists, dietitians, and other allied health professionals working together to provide comprehensive care (Firth-Cozens, 2001). Each team member brings a unique skill set, and the collaboration among them ensures that all aspects of patient care, from diagnosis and treatment to

rehabilitation and follow-up, are thoroughly addressed. This team-based approach is especially critical in managing chronic diseases and patients with multiple comorbidities, where seamless coordination of care is essential for optimizing patient outcomes (Ouwens et al., 2005).

Research has shown that effective teamwork within multidisciplinary teams leads to better health outcomes, reduced hospital readmissions, and lower healthcare costs (Mitchell et al., 2008). However, challenges such as communication barriers, differences in professional hierarchies, and conflicting priorities can hinder the effective functioning of these teams, thus impacting the delivery of patient-centered care (Wheelan, 2005). While the roles of physicians and nurses within these teams are well understood, the contribution of pharmacists, particularly in terms of their role in enhancing patient-centered care, is an area that has received less attention in the literature.

3. Pharmacists' Role in Multidisciplinary Teams

Pharmacists, as medication experts, play a crucial role in ensuring safe and effective pharmacotherapy within multidisciplinary teams. Their responsibilities often include reviewing medication regimens, identifying potential drug interactions, and optimizing medication use for individual patients (Makowsky et al., 2009). In a patient-centered care model, pharmacists' contributions extend beyond medication management to include patient counseling, medication adherence support, and collaboration with other healthcare professionals to tailor treatments to the specific needs of patients (Pellegrino et al., 2009).

Several studies have highlighted the positive impact of pharmacists in multidisciplinary teams. For example, Kaboli et al. (2006) found that pharmacist involvement in inpatient care was associated with reduced medication errors and improved clinical outcomes, particularly in high-risk populations such as elderly patients and those with chronic diseases. Moreover, pharmacists have been shown to improve patient outcomes through their involvement in medication reconciliation, a process critical during transitions of care, such as hospital discharge (Nester & Hale, 2002). However, there is still a need to explore pharmacists' experiences and perceptions of their roles within these teams, especially in relation to delivering patient-centered care.

4. Challenges Faced by Pharmacists in Multidisciplinary Teams

Although pharmacists are increasingly recognized as essential members of multidisciplinary teams, they face several challenges that can hinder their ability to fully engage in patient-centered care. Communication barriers, hierarchical structures within healthcare teams, and time constraints are common obstacles that pharmacists encounter (Makowsky et al., 2009). Studies have noted that pharmacists may feel marginalized in teams where their contributions are undervalued, or where they are seen primarily as medication dispensers rather than integral contributors to patient care (Jorgenson et al., 2014).

Moreover, conflicting priorities between team members can limit the ability of pharmacists to advocate for patient-centered care. Physicians, for instance, may prioritize diagnostic or surgical interventions over comprehensive medication management, while nurses may focus more on patient monitoring and bedside care (Mitchell et al., 2008). In such cases, pharmacists must navigate these professional dynamics to assert their role in optimizing patient care.

5. Opportunities for Enhancing Pharmacists' Contributions to Patient-Centered Care

Despite these challenges, there are numerous opportunities to enhance pharmacists' involvement in multidisciplinary teams, particularly in delivering patient-centered care. Interprofessional education (IPE)

has been identified as a key strategy for improving collaboration and communication among healthcare professionals (Barr et al., 2008). By fostering a deeper understanding of each professional's role in patient care, IPE can help break down silos within healthcare teams and empower pharmacists to contribute more effectively to patient-centered care.

Additionally, the integration of technology, such as electronic health records (EHR) and clinical decision support systems, offers pharmacists greater opportunities to engage in the care process. These systems enable real-time sharing of patient information, allowing pharmacists to participate more actively in decision-making and care planning (Hatem et al., 2024). As tertiary hospitals increasingly adopt these technologies, pharmacists can play a more central role in ensuring that medication-related decisions are patient-centered and evidence-based.

6. Gaps in the Literature

While there is a growing body of research highlighting the importance of multidisciplinary teams in patient-centered care, studies specifically focusing on pharmacists' experiences within these teams remain limited. Much of the existing literature emphasizes quantitative outcomes, such as reductions in medication errors or hospital readmissions, without exploring the personal and professional experiences of pharmacists in multidisciplinary settings. Understanding these experiences is crucial for identifying strategies to enhance pharmacists' contributions to patient-centered care and addressing the challenges they face in tertiary hospital environments (Pellegrino et al., 2009).

In summary, patient-centered care requires the collaborative efforts of multidisciplinary teams, with pharmacists playing an essential role in optimizing medication therapy and improving patient outcomes. However, their experiences within these teams and their contributions to patient-centered care are not fully understood. This literature review highlights the need for further qualitative research into how pharmacists perceive their role in multidisciplinary teams, the challenges they face, and the opportunities for enhancing their involvement in patient-centered care. By addressing these gaps, healthcare systems can better support pharmacists in their efforts to deliver high-quality, patient-centered care in tertiary hospital settings.

Methodology

Study Design

This study employed a qualitative research design using semi-structured interviews to explore pharmacists' experiences with patient-centered care in multidisciplinary teams within a tertiary hospital. A qualitative approach was chosen to allow for an in-depth exploration of pharmacists' perspectives, providing rich, detailed insights into their roles, challenges, and contributions to patient-centered care.

Setting and Participants

The study was conducted in a large tertiary hospital, offering a range of specialized medical services. Pharmacists working in various multidisciplinary teams, including teams in the intensive care unit (ICU), general medicine, oncology, and cardiology departments, were recruited to participate in the study. The inclusion criteria for participants were:

- Registered pharmacists with at least two years of experience working in a tertiary hospital.
- Pharmacists currently involved in multidisciplinary teams.
- Willingness to share their experiences regarding patient-centered care and teamwork.

A total of 15 pharmacists were purposively selected based on their involvement in multidisciplinary teams across different departments to ensure a diversity of perspectives. The pharmacists were approached via email, and those who agreed to participate provided written informed consent prior to the interviews.

Data Collection

Data were collected through semi-structured interviews conducted over a period of two months. Each interview lasted between 45 and 60 minutes and was held in a quiet meeting room within the hospital to ensure privacy and confidentiality. The interviews were audio-recorded with participants' consent and later transcribed verbatim for analysis.

The interview guide was developed based on the study objectives and previous literature on pharmacists' roles in patient-centered care. Open-ended questions were used to encourage participants to provide detailed accounts of their experiences. Key topics explored in the interviews included:

- Pharmacists' perceptions of their role in multidisciplinary teams.
- Their involvement in patient-centered care practices.
- The challenges they face in delivering patient-centered care within teams.
- Examples of how they contributed to improved patient outcomes through collaboration.
- Opportunities for enhancing their role in multidisciplinary settings.

Follow-up questions were used to probe deeper into participants' responses and clarify their statements when necessary.

Data Analysis

Thematic analysis was used to analyze the data, following the six-step framework outlined by Braun and Clarke (2006). The process began with familiarization, where the researchers immersed themselves in the data by repeatedly reading the interview transcripts. Initial codes were generated by identifying significant statements or patterns related to the pharmacists' experiences, roles, and challenges within multidisciplinary teams.

Once the data were coded, the researchers organized the codes into broader themes that reflected the key findings of the study. These themes were reviewed and refined to ensure they accurately captured the participants' experiences. Discrepancies or disagreements in coding were resolved through discussion among the research team until consensus was reached.

The main themes that emerged from the analysis included: (1) pharmacists' perceptions of their collaborative role, (2) the importance of communication within teams, (3) challenges in delivering patient-centered care, and (4) opportunities for enhancing pharmacists' involvement in multidisciplinary care.

Ethical Considerations

The study protocol was reviewed and approved by the ethics committee. All participants were provided with information regarding the study's objectives, their voluntary participation, and their right to withdraw at any time without consequence. Confidentiality was assured by assigning codes to the participants and removing any identifying information from the transcripts. The audio recordings and transcripts were securely stored on a password-protected computer, accessible only to the research team.

Trustworthiness and Rigor

To ensure the trustworthiness and rigor of the study, several strategies were employed. Credibility was achieved through prolonged engagement with the participants during interviews, allowing for a deeper understanding of their experiences. Member checking was conducted by providing participants with a summary of the key findings to ensure their perspectives were accurately represented. Transferability was addressed by providing detailed descriptions of the study context and participants, allowing readers to assess the applicability of the findings to other settings. Dependability and confirmability were enhanced by maintaining an audit trail of all research decisions, including coding and theme development.

By adopting these rigorous methods, the study aimed to provide reliable and valid insights into the experiences of pharmacists in multidisciplinary teams and their contributions to patient-centered care in a tertiary hospital setting.

Findings

Through thematic analysis of the interviews with 15 pharmacists working in multidisciplinary teams in a tertiary hospital, four main themes and several sub-themes emerged. The findings reflect pharmacists' experiences in delivering patient-centered care within teams, the challenges they face, and their contributions to patient outcomes.

Theme 1: Pharmacists' Perceptions of Their Role in Multidisciplinary Teams

Pharmacists highlighted the centrality of their role in ensuring safe and effective medication use within the multidisciplinary team. They saw themselves as medication experts who bridge the gap between patients and other healthcare professionals.

Sub-theme 1.1: Medication Management Experts

Pharmacists consistently described their primary responsibility as optimizing medication therapy and ensuring the safety of drug regimens. They emphasized their ability to identify potential drug interactions and tailor therapies to meet individual patient needs.

- Participant 3: "My role is to ensure that every medication the patient is on is appropriate for their condition, and I often find myself recommending changes when something seems off. This is particularly important with complex cases."
- Participant 8: "Doctors often ask for my input on drug interactions, especially when the patient is on multiple medications. I see myself as the safety net for medication management."

Sub-theme 1.2: Collaborators in Care Planning

Pharmacists discussed how they work alongside physicians, nurses, and other healthcare professionals to develop individualized care plans. They emphasized the importance of providing input on medication-related issues during team discussions.

- Participant 12: "I'm often asked to weigh in during rounds. While the doctors might focus on diagnostics, I'm there to offer solutions on the medication side—whether it's adjusting dosages or suggesting alternative treatments."
- Participant 6: "It's a partnership. We work together as a team to ensure that the patient is getting the best care, and I'm always thinking about how medications fit into that overall picture."

Theme 2: Importance of Communication within Teams

Effective communication emerged as a key component of pharmacists' participation in multidisciplinary teams. Pharmacists noted that clear communication was vital to providing patient-centered care.

Sub-theme 2.1: Facilitating Interprofessional Communication

Pharmacists reported that they often acted as a communication link between different team members, especially regarding medication management. They stressed that clear communication helped prevent errors and ensured that everyone was on the same page.

- Participant 9: "Sometimes, I find myself clarifying orders or explaining why a particular medication might not be suitable for a patient. Communication is key to avoiding mistakes."

- Participant 14: "When you're part of a team, you have to make sure that everyone is on the same page. I'll often follow up with the nurse or the doctor if I see something in the medication orders that doesn't make sense."

Sub-theme 2.2: Barriers to Communication

While pharmacists acknowledged the importance of communication, they also discussed barriers, including hierarchical dynamics within the healthcare team and time constraints.

- Participant 2: "I've had instances where my suggestions weren't taken seriously, and I think part of it is the hierarchy in the medical field. Sometimes, doctors don't see pharmacists as part of the core team."

- Participant 10: "Time is a big issue. In the fast-paced environment of the hospital, there isn't always enough time to have detailed conversations about medications with the rest of the team."

Theme 3: Challenges in Delivering Patient-Centered Care

Pharmacists faced several challenges that limited their ability to fully engage in patient-centered care, including workload, lack of recognition, and systemic constraints.

Sub-theme 3.1: Heavy Workload

Pharmacists discussed how their workload often prevented them from spending as much time as they would like on direct patient care and collaboration with other team members.

- Participant 7: "I'm constantly juggling between patient consultations, verifying prescriptions, and attending team meetings. It feels like there's not enough time to really focus on individual patient care the way I'd like."

- Participant 13: "With so many tasks on my plate, I sometimes feel stretched thin, and that can make it difficult to be as involved in patient-centered care as I'd like to be."

Sub-theme 3.2: Limited Recognition of Pharmacists' Contributions

Some pharmacists felt that their contributions were undervalued or not fully recognized by other healthcare professionals, which sometimes led to frustration.

- Participant 1: "I think pharmacists are often seen as medication dispensers, rather than integral members of the team. It can be disheartening when you know you could contribute more, but your input isn't always sought."

- Participant 11: "There are times when I feel like I have a lot to offer, especially when it comes to medication management, but I'm not always included in key discussions."

Theme 4: Opportunities for Enhancing Pharmacists' Involvement in Multidisciplinary Care Pharmacists identified several opportunities for improving their role in multidisciplinary teams and increasing their contribution to patient-centered care.

Sub-theme 4.1: Interprofessional Education

Many participants believed that interprofessional education (IPE) could improve collaboration and communication between team members, allowing pharmacists to take on a more active role in patient-centered care.

- Participant 5: "I think interprofessional education is key. If we had more opportunities to learn about each other's roles, I believe we'd work together more effectively and that would ultimately benefit the patient."

- Participant 15: "We need to break down silos in healthcare. Training together as a team—doctors, nurses, and pharmacists—would help us understand each other's perspectives and work more collaboratively."

Sub-theme 4.2: Increased Use of Technology

Pharmacists also noted that technology, such as electronic health records (EHR) and decision support systems, could facilitate better communication and coordination within teams, enhancing their ability to contribute to patient care.

- Participant 4: "Technology has made it easier to stay on top of patient information. With EHR, I can easily flag issues related to medications and communicate them to the team in real-time."

- Participant 8: "Decision support systems are helpful because they give real-time feedback on potential medication interactions. It makes my job easier and ensures that I can make a meaningful contribution to patient safety."

Discussion

This study explored pharmacists' experiences with patient-centered care within multidisciplinary teams in a tertiary hospital. The findings reveal both the significant contributions pharmacists make to patient care and the challenges they encounter in fulfilling their role. By examining their perceptions, this discussion highlights key themes such as their involvement in medication management, communication within teams, challenges in delivering patient-centered care, and opportunities for enhancing their role.

1. Pharmacists' Role as Medication Experts in Multidisciplinary Teams

Pharmacists clearly see themselves as the primary experts in medication management within multidisciplinary teams, a finding consistent with previous research (Makowsky et al., 2009). Their role in optimizing medication therapy, identifying drug interactions, and ensuring the safe use of medications underscores their critical contributions to patient-centered care. Pharmacists' involvement in care planning with physicians and nurses demonstrates their importance in providing holistic care to patients, especially in complex cases requiring careful coordination of pharmacotherapy.

However, while pharmacists' expertise is well-recognized in areas related to medication, there seems to be variability in how their input is integrated into the broader aspects of patient care. As shown in studies by Kaboli et al. (2006), pharmacists' engagement in clinical decision-making can reduce medication errors and improve outcomes, but this potential is not fully realized in every setting. Pharmacists in this study expressed that, despite their clear value, their contributions are sometimes limited by existing team dynamics and hierarchical structures, which can undermine their ability to provide patient-centered care.

2. Communication as a Double-Edged Sword

The theme of communication emerged as both an enabler and a barrier to effective participation in multidisciplinary teams. Pharmacists acknowledged the importance of clear, open communication with other healthcare professionals to ensure safe medication practices and prevent errors, which is well supported in the literature (Nester & Hale, 2002). Pharmacists often act as intermediaries, ensuring that critical information about medications is conveyed to the appropriate team members.

However, communication barriers, including hierarchical issues and time constraints, were significant challenges noted by pharmacists. This reflects findings from other studies that have identified poor interprofessional communication as a common issue in hospital settings (Mitchell et al., 2008). When pharmacists are not seen as equal partners in the care team, their ability to contribute meaningfully is diminished, which can compromise patient safety. Addressing these barriers through interprofessional education and teamwork initiatives could foster greater collaboration and allow pharmacists to have a more active role in patient-centered care.

3. Challenges in Delivering Patient-Centered Care

Pharmacists in this study faced multiple challenges that limited their ability to fully engage in patient-centered care. The most prominent challenge was the heavy workload, which often left pharmacists feeling stretched thin and unable to dedicate as much time to patient interaction as they would like. This finding is consistent with the broader literature, where workload pressures are commonly cited as a barrier to optimal care delivery (Jorgenson et al., 2014).

Additionally, the limited recognition of pharmacists' contributions within the healthcare team can lead to frustration and disengagement, as noted by several participants. This lack of acknowledgment may stem from the traditional perception of pharmacists as primarily involved in dispensing medications, rather than as integral members of the clinical decision-making process. This echoes previous findings by Pellegrino et al. (2009), which emphasized the need for better recognition of pharmacists' clinical roles within hospital settings.

4. Opportunities for Enhancing Pharmacists' Contributions

Despite the challenges, participants identified several opportunities for improving their involvement in patient-centered care. One key opportunity is interprofessional education (IPE), which can foster better understanding and collaboration between healthcare professionals. Studies show that IPE enhances teamwork and communication by allowing healthcare professionals to learn from and about each other's roles (Barr et al., 2008). Participants in this study supported this idea, suggesting that greater integration of pharmacists in team-based training and decision-making could improve their ability to contribute to patient-centered care.

Another opportunity lies in the increased use of technology, such as electronic health records (EHR) and clinical decision support systems. These technologies facilitate real-time communication and data sharing, allowing pharmacists to be more proactive in managing medications and contributing to patient care decisions (Hatem et al., 2024). Participants noted that these tools help streamline communication, enabling them to provide timely interventions and recommendations for patient care.

5. Implications for Practice

The findings of this study have important implications for hospital management, healthcare teams, and policy-makers. First, it is essential to foster a culture of collaboration where pharmacists are fully integrated into the multidisciplinary care team. This can be achieved by promoting interprofessional education and encouraging team-based decision-making that values the input of all healthcare professionals, including pharmacists. Additionally, addressing workload pressures and providing pharmacists with adequate time to engage in patient-centered care can improve both patient outcomes and job satisfaction among pharmacists.

Technology also plays a critical role in supporting pharmacists' involvement in patient care. Hospitals should continue to invest in EHR systems and decision support tools that enhance communication and allow pharmacists to participate more effectively in the care process.

6. Limitations and Future Research

While this study provides valuable insights into pharmacists' experiences, there are some limitations that must be acknowledged. First, the study was conducted in a single tertiary hospital, which may limit the generalizability of the findings to other settings. Additionally, the small sample size of 15 participants, while sufficient for qualitative research, may not capture the full diversity of experiences among hospital pharmacists.

Future research should consider expanding the study to multiple hospitals and increasing the sample size to include pharmacists from a wider range of specialties and departments. Further exploration of how interprofessional education and technology can be leveraged to enhance pharmacists' roles in multidisciplinary teams would also be beneficial.

Conclusion

This study highlights the critical role that pharmacists play in multidisciplinary teams in delivering patient-centered care, particularly through their expertise in medication management. However, barriers such as communication challenges, heavy workloads, and limited recognition of their contributions hinder their ability to fully participate in patient-centered care. By addressing these challenges through interprofessional education, fostering collaborative team cultures, and leveraging technology, hospitals can enhance the role of pharmacists in improving patient outcomes.

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