

Patient Perspectives on Multidisciplinary Care in Chronic Disease Management: A Qualitative Study in a Tertiary Hospital Setting

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Abstract

Background: Multidisciplinary care, involving pharmacists, laboratory specialists, and social services administrators, has been increasingly adopted in managing chronic diseases like diabetes and heart disease. However, patient perspectives on this approach remain underexplored.

Objective: This study aims to explore how patients perceive the roles of healthcare professionals in multidisciplinary teams and their experiences with collaborative care in managing chronic diseases.

Methods: A qualitative study using semi-structured interviews was conducted with 20 patients receiving multidisciplinary care in a tertiary hospital. Data were analyzed using thematic analysis to identify key themes related to patient experiences.

Results: Patients generally had a clear understanding of the pharmacist's role in improving medication adherence but were less aware of the contributions of laboratory specialists and social services administrators. Overall, patients valued the collaborative care model, citing improved health outcomes and medication adherence. However, communication gaps between team members and a lack of patient education about professional roles were identified as areas for improvement.

Conclusion: Multidisciplinary care enhances patient satisfaction and health outcomes, but clearer communication and better role clarity are needed. Improving coordination between team members and educating patients on the contributions of each professional can optimize care.

Keywords: Multidisciplinary care, patient perspectives, chronic disease management, pharmacist, laboratory specialist, social services administrator, qualitative study

Introduction

Chronic diseases, such as diabetes and heart disease, are leading causes of morbidity and mortality worldwide, requiring complex, long-term management to ensure positive health outcomes. Effective management of chronic diseases often involves multiple facets of care, including medication adherence, regular monitoring of clinical markers, and addressing social determinants of health. As these conditions become more prevalent, healthcare systems have increasingly adopted multidisciplinary approaches, recognizing that coordinated efforts between various healthcare professionals can improve patient outcomes (Nolte & McKee, 2008).

A multidisciplinary team (MDT) typically includes professionals such as pharmacists, laboratory specialists, and social services administrators, each contributing their expertise to the holistic management of chronic conditions. Pharmacists play a key role in ensuring patients understand their medications, improve adherence, and minimize drug-related complications (Chisholm-Burns et al., 2010). Laboratory specialists monitor biomarkers and provide essential diagnostic information that informs treatment plans. Social services administrators address broader social determinants of health, such as financial barriers, access to healthcare resources, and support networks, which can profoundly influence health outcomes (Braveman & Gottlieb, 2014).

Despite the growing adoption of multidisciplinary care models, there is limited research exploring patient perspectives on this approach, particularly in the context of chronic disease management. Understanding how patients perceive the roles of different healthcare professionals and how they experience the care provided by multidisciplinary teams is crucial for improving the quality of care and ensuring that patients' needs are met holistically.

This study aims to explore patient perspectives on multidisciplinary care for managing chronic diseases, specifically focusing on the roles of pharmacists, laboratory specialists, and social services administrators. By examining patient experiences, this research seeks to provide insights into the effectiveness of multidisciplinary care in chronic disease management and identify areas for improvement in delivering patient-centered care.

Literature Review

Chronic Disease Management and Multidisciplinary Care

Chronic diseases, such as diabetes and cardiovascular conditions, present ongoing challenges for healthcare systems due to their complex and long-term nature. Managing these conditions often requires a multifaceted approach, including lifestyle changes, medication adherence, regular monitoring of clinical markers, and addressing social determinants of health (Nolte & McKee, 2008). Traditionally, healthcare providers have approached chronic disease management in a fragmented manner, but there is a growing recognition of the need for a coordinated, multidisciplinary care model to improve outcomes (Hulscher et al., 2013).

Multidisciplinary care involves the collaboration of professionals from various healthcare disciplines who work together to provide a holistic and patient-centered approach to managing chronic conditions. Each professional contributes their expertise, ensuring that patients receive comprehensive care that addresses both medical and social aspects of their conditions. Studies have shown that this approach improves clinical outcomes, reduces hospital admissions, and enhances patient satisfaction (Vahdat et al., 2014).

Role of Pharmacists in Multidisciplinary Care

Pharmacists play a crucial role in the management of chronic diseases by ensuring that patients adhere to their prescribed medication regimens and understand the purpose and potential side effects of their medications. Research has consistently shown that pharmacist involvement in chronic disease management leads to better medication adherence and reduced medication errors (Chisholm-Burns et al., 2010). In diabetes care, for instance, pharmacists have been shown to contribute significantly to patient education, helping to optimize glycemic control and manage comorbid conditions such as hypertension and hyperlipidemia (Al-Qazaz et al., 2011).

Pharmacist-led interventions, such as medication reviews, have been linked to reductions in hospitalizations and emergency department visits, particularly among patients with multiple chronic conditions. By working alongside other healthcare professionals, pharmacists ensure that patients' medication regimens are optimized and tailored to their individual needs, which is particularly important in the context of polypharmacy and chronic disease management (Santschi et al., 2011).

Role of Laboratory Specialists in Chronic Disease Management

Laboratory specialists contribute to chronic disease management by providing critical diagnostic information that informs treatment decisions. For patients with chronic conditions, regular monitoring of biomarkers—such as blood glucose levels in diabetes or lipid profiles in cardiovascular disease—is essential for assessing disease progression and treatment efficacy. Laboratory results help healthcare providers adjust treatment plans, monitor potential complications, and detect early signs of disease exacerbation (Sacks et al., 2011).

In the multidisciplinary care model, laboratory specialists collaborate with pharmacists and other healthcare providers to ensure that patients' lab results are integrated into their overall care plan. This collaboration enables timely interventions and adjustments to therapy, improving clinical outcomes. Moreover, laboratory specialists play a key role in identifying potential adverse drug reactions through lab testing, which is particularly important for patients with chronic conditions who are often on multiple medications (Nichols, 2007).

Role of Social Services Administrators in Addressing Social Determinants of Health

Social services administrators are essential in addressing the social determinants of health that often affect patients with chronic diseases. These determinants include socioeconomic factors such as income, education, and access to healthcare services, which can significantly impact a patient's ability to manage their condition (Braveman & Gottlieb, 2014). For example, patients who cannot afford medications or lack transportation to medical appointments are more likely to experience poor health outcomes, even if they receive appropriate medical care.

In the context of multidisciplinary care, social services administrators work alongside pharmacists and laboratory specialists to provide patients with the resources and support needed to overcome these barriers. This might involve connecting patients with financial assistance programs, arranging transportation to healthcare facilities, or helping them navigate complex healthcare systems. By addressing the non-medical factors that influence health, social services administrators play a vital role in ensuring that patients can adhere to their treatment plans and improve their overall health outcomes (Braveman et al., 2011).

Patient Perspectives on Multidisciplinary Care

Understanding patient perspectives on multidisciplinary care is essential for improving the delivery of healthcare services, particularly for patients with chronic diseases. Patients who feel supported by a coordinated healthcare team are more likely to adhere to their treatment regimens and engage in self-care practices, which are critical for managing chronic conditions. Research suggests that patients value the collaborative approach of multidisciplinary teams, as it provides them with a sense of comprehensive care and increases their confidence in managing their health (Vahdat et al., 2014).

However, some studies have highlighted challenges in the implementation of multidisciplinary care from the patient's perspective. For example, patients may experience confusion about the roles of different healthcare

providers or feel overwhelmed by the number of professionals involved in their care (Hulscher et al., 2013). This underscores the importance of clear communication and coordination among healthcare professionals to ensure that patients understand their care plans and feel empowered to manage their conditions.

Patient satisfaction with multidisciplinary care is often linked to the quality of communication between patients and healthcare providers. Studies have shown that when patients feel that their concerns are listened to and addressed by the entire care team, they are more likely to experience positive health outcomes and higher levels of satisfaction (Hibbard and Greene, 2013). This highlights the need for ongoing research into how multidisciplinary teams can better meet the needs and expectations of patients, particularly those with chronic diseases who require long-term, coordinated care.

Gaps in the Literature

While there is substantial evidence supporting the benefits of multidisciplinary care in chronic disease management, there is limited research that specifically explores patient perspectives on this care model. Most studies have focused on clinical outcomes, such as improvements in disease markers or reductions in hospital admissions, with less attention paid to how patients experience and perceive the care provided by multidisciplinary teams. Understanding patient perspectives is critical for identifying areas where multidisciplinary care can be improved to enhance patient satisfaction and health outcomes. This study seeks to fill that gap by exploring how patients perceive the roles of pharmacists, laboratory specialists, and social services administrators in managing their chronic conditions.

Methodology

Study Design

This study employed a qualitative, phenomenological approach to explore patient perspectives on multidisciplinary care for chronic disease management. The phenomenological method was chosen to understand the lived experiences of patients receiving care from a multidisciplinary team, which included a pharmacist, laboratory specialist, and social services administrator. This design allowed for an in-depth exploration of how patients perceive the roles of each professional and how they experienced collaborative care.

Setting

The study was conducted at a large tertiary care hospital. The hospital's chronic disease management program involves a multidisciplinary team that supports patients with chronic conditions such as diabetes and heart disease. The team includes a pharmacist who manages medication adherence, a laboratory specialist responsible for monitoring patient biomarkers, and a social services administrator who addresses social determinants of health.

Participants

A total of 20 participants were recruited for the study using purposive sampling. Participants were selected based on the following inclusion criteria:

- Inclusion Criteria:

- Adults (aged 18 and older) diagnosed with a chronic disease (e.g., diabetes, heart disease) and receiving care from the hospital's multidisciplinary team for at least six months.

- Patients who had regular interactions with the pharmacist, laboratory specialist, and social services administrator as part of their care plan.

- Exclusion Criteria:

- Patients who had been receiving multidisciplinary care for less than six months.
- Patients unable to provide informed consent or with cognitive impairments affecting their ability to participate in interviews.

The purposive sampling ensured that participants had sufficient experience with the multidisciplinary care model and could provide detailed insights into their experiences.

Data Collection

Data were collected using semi-structured interviews conducted face-to-face in a private setting at the hospital. Each interview lasted approximately 45–60 minutes and was audio-recorded with the participants' consent. The interviews were conducted over a 4-week period to allow flexibility in scheduling with the patients.

The semi-structured interview guide was developed to explore key aspects of patients' experiences with the multidisciplinary care model. The interview questions focused on:

- Patients' understanding of the roles of the pharmacist, laboratory specialist, and social services administrator in managing their chronic condition.
- How patients experienced the collaboration between these healthcare professionals.
- The perceived impact of multidisciplinary care on medication adherence, disease management, and overall quality of life.
- Challenges and benefits of receiving care from a multidisciplinary team.

Sample questions included:

- "Can you describe your experience working with the pharmacist, laboratory specialist, and social services administrator?"
- "How did the collaboration between these professionals affect your ability to manage your condition?"
- "What aspects of the care you received were most helpful or challenging?"

Data Analysis

Data were analyzed using thematic analysis following Braun and Clarke's (2006) six-step framework. The audio recordings were transcribed verbatim, and the transcriptions were thoroughly reviewed to ensure accuracy. The thematic analysis involved the following steps:

1. Familiarization with the Data: The researchers immersed themselves in the data by repeatedly reading the transcripts to gain an understanding of the participants' experiences.
2. Generating Initial Codes: Initial codes were developed based on recurring patterns in the data. Two researchers independently coded the transcripts to ensure consistency, and discrepancies were discussed and resolved.
3. Searching for Themes: The codes were organized into broader themes that captured the key aspects of patient perspectives on multidisciplinary care. Themes were developed based on the research questions, with particular attention to how patients described their interactions with each professional and their overall care experience.
4. Reviewing Themes: The themes were reviewed and refined to ensure they accurately reflected the data. The researchers ensured that the themes were internally consistent and distinct from one another.

5. Defining and Naming Themes: Clear definitions and labels were assigned to each theme, ensuring they captured the essence of the patients' experiences. The final themes were supported by direct quotes from the participants to illustrate the key findings.

6. Writing Up: The final step involved integrating the themes into the research report, ensuring that the findings addressed the research questions and were supported by rich descriptions from the participants.

Ethical Considerations

Ethical approval for the study was obtained from the Ethics Committee. All participants were provided with detailed information about the study's objectives and procedures before participation. Written informed consent was obtained from all participants. Participants were informed of their right to withdraw from the study at any time without any consequences to their care. The interviews were anonymized to ensure confidentiality, and all data were securely stored with restricted access to the research team.

Trustworthiness

To ensure the trustworthiness of the study, several strategies were employed:

- Credibility: Credibility was enhanced through member checking, where participants were given the opportunity to review and verify the accuracy of the interview summaries. This ensured that their experiences were accurately captured.
- Dependability: An audit trail was maintained throughout the research process, documenting decisions made during data collection and analysis.
- Transferability: Thick descriptions of the research setting and participant experiences were provided to enable other researchers to assess the applicability of the findings in different contexts.
- Confirmability: Reflexivity was maintained throughout the study, with the researchers reflecting on their own biases and preconceptions to minimize their influence on the data interpretation.

Findings

Thematic analysis of the data revealed several key themes and sub-themes related to patients' experiences with multidisciplinary care for managing chronic diseases. The analysis focused on how patients perceived the roles of the pharmacist, laboratory specialist, and social services administrator, as well as their overall experience with collaborative care. The following themes and sub-themes emerged from the interviews:

Theme 1: Understanding the Roles of Healthcare Professionals

Participants expressed varying levels of understanding of the roles played by the pharmacist, laboratory specialist, and social services administrator in their care. While most participants clearly understood the roles of the pharmacist, some had less clarity regarding the contributions of the laboratory specialist and social services administrator.

Sub-theme 1.1: Clarity of the Pharmacist's Role

Most participants were aware of the pharmacist's role in managing their medications, particularly in terms of adjusting dosages, explaining side effects, and ensuring medication adherence.

- Participant 3 (Diabetes Patient):

“The pharmacist has been a great help. They always check if I'm taking my insulin right and remind me of how important it is to stay on track. I feel more confident managing my medication.”

- Participant 7 (Heart Disease Patient):

“The pharmacist explained all my medications clearly. They adjusted my blood pressure medication when my numbers weren't where they should be, and it made a big difference.”

Sub-theme 1.2: Limited Awareness of the Laboratory Specialist's Role

Although participants acknowledged the laboratory specialist's involvement in conducting tests, many were less aware of the specialist's role in actively monitoring their health and adjusting their care plans based on lab results.

- Participant 10 (Diabetes Patient):

"I know they run my blood tests, but I don't really interact with them much. I get the results from my doctor or pharmacist."

- Participant 5 (Heart Disease Patient):

"I know the lab results are important, but I don't really know what goes on behind the scenes. I just trust that they're keeping an eye on my numbers."

Sub-theme 1.3: Unclear Understanding of the Social Services Administrator's Role

Some participants expressed confusion about the role of the social services administrator, particularly if they had not directly accessed financial or social support services.

- Participant 8 (Diabetes Patient):

"I'm not sure what the social services person does. I didn't really talk to them unless I needed help with something specific, like my insurance."

- Participant 1 (Heart Disease Patient):

"I didn't realize they were part of the team until I needed help getting my prescriptions covered. After that, they were really helpful."

Theme 2: Experiences of Multidisciplinary Collaboration

Patients generally reported positive experiences with the multidisciplinary approach, highlighting the benefits of receiving coordinated care from different professionals. However, some participants noted challenges in communication between team members.

Sub-theme 2.1: Feeling Supported by a Collaborative Team

Participants frequently mentioned how the collaboration between the pharmacist, laboratory specialist, and social services administrator made them feel more supported in managing their chronic conditions.

- Participant 2 (Heart Disease Patient):

"I felt like everyone was on the same page. The pharmacist and the lab people worked together to make sure I was taking the right meds based on my blood tests. It was all very organized."

- Participant 9 (Diabetes Patient):

"The social services administrator helped me sort out my insurance, and the pharmacist made sure I could afford my medication. It's nice knowing that different people are looking out for me in different ways."

Sub-theme 2.2: Communication Gaps Between Team Members

While participants appreciated the overall care, some expressed frustration with communication gaps, particularly when one professional's recommendations were not effectively conveyed to the others.

- Participant 6 (Diabetes Patient):

"There were times when the pharmacist changed my medication, but it didn't seem like the social services person knew about it, so I had trouble getting it approved at first."

- Participant 4 (Heart Disease Patient):

"Sometimes it felt like I had to be the one telling everyone what was going on. I expected them to talk to each other more."

Theme 3: Impact on Health Outcomes and Medication Adherence

Participants consistently reported that the multidisciplinary care approach had a positive impact on their ability to manage their chronic diseases, particularly in terms of medication adherence and overall health outcomes.

Sub-theme 3.1: Improved Medication Adherence

Several participants noted that the pharmacist's involvement helped them better understand their medication regimens, which led to improved adherence and fewer complications.

- Participant 3 (Diabetes Patient):

"Before, I sometimes missed my insulin shots because I wasn't sure when I should take them. The pharmacist explained everything to me, and now I'm much more consistent."

- Participant 7 (Heart Disease Patient):

"I used to forget to take my blood pressure pills, but after working with the pharmacist, I set up a routine and haven't missed a dose since."

Sub-theme 3.2: Positive Influence on Health Outcomes

Participants also reported improvements in their health, attributing these positive outcomes to the combined efforts of the multidisciplinary team.

- Participant 2 (Heart Disease Patient):

"My blood pressure has been more stable since the team started working together. I think the lab tests help them see what's going on, and the pharmacist makes sure I'm on the right meds."

- Participant 10 (Diabetes Patient):

"I feel more in control of my diabetes now. My blood sugar levels are better, and I know it's because everyone is helping me from different angles."

Theme 4: Challenges and Suggestions for Improvement

Despite the positive experiences, participants identified challenges with the multidisciplinary care approach and offered suggestions for improving coordination and communication.

Sub-theme 4.1: Need for Improved Communication and Coordination

Participants expressed a desire for better communication between team members and suggested more structured collaboration to ensure everyone was aligned on their care plan.

- Participant 5 (Heart Disease Patient):

"It would help if there were more regular meetings between the team members, so I don't have to repeat myself or deal with confusion over changes in my meds."

- Participant 8 (Diabetes Patient):

"I think they should work together more closely, especially when it comes to following up on test results and making sure I can get my prescriptions filled without any issues."

Sub-theme 4.2: Recommendations for Patient Education

Some participants suggested that more education on the roles of the different professionals would help patients better understand how each team member contributes to their care.

- Participant 6 (Diabetes Patient):

"It would be helpful if they explained what everyone on the team does when you first start. I didn't know the social services administrator could help me with my medication costs until later."

Discussion

This study explored patient perspectives on the multidisciplinary care approach for managing chronic diseases, particularly diabetes and heart disease, in a tertiary hospital setting. The findings reveal that patients generally perceive multidisciplinary care positively, with notable benefits in medication adherence and overall health outcomes. However, some challenges, such as communication gaps between team members and a lack of clarity about specific roles, were also identified. This section will discuss the key findings in relation to existing literature, address the implications for practice, and suggest areas for improvement and future research.

Understanding the Roles of Healthcare Professionals

Patients had a clear understanding of the pharmacist's role in their care, often attributing improved medication adherence and confidence in managing their chronic disease to the pharmacist's guidance. This finding aligns with previous research showing that pharmacists play a critical role in improving medication adherence and optimizing chronic disease management through patient education and medication reviews (Chisholm-Burns et al., 2010). Patients appreciated the pharmacist's hands-on approach to explaining medications, adjusting doses, and addressing side effects, which empowered them to adhere more consistently to their treatment regimens.

However, many patients had less clarity about the roles of laboratory specialists and social services administrators. While patients recognized the importance of lab tests, they were generally unaware of the laboratory specialist's active role in monitoring their health status and providing critical information for treatment decisions. This lack of awareness might indicate that laboratory specialists have less direct interaction with patients, which can result in patients perceiving them as less integral to their care. Previous studies have noted that when patients have limited contact with certain healthcare professionals, they may undervalue their contributions (Sacks et al., 2011).

Similarly, patients expressed confusion about the role of social services administrators unless they had directly accessed financial or social support services. These findings suggest that more effort is needed to inform patients about the contributions of all team members, particularly those working behind the scenes or those whose roles are less visible. Patient education about the multidisciplinary team structure could help patients better understand how each professional supports their care and contributes to better outcomes.

Experiences of Multidisciplinary Collaboration

Patients reported feeling well-supported by the collaborative care model, appreciating how the pharmacist, laboratory specialist, and social services administrator worked together to address different aspects of their care. This is consistent with research indicating that multidisciplinary teams provide more holistic care, which can improve patient satisfaction and health outcomes (Vahdat et al., 2014). The coordinated efforts of the team were particularly valuable in ensuring that medications were optimized based on laboratory results and that patients had access to the necessary social supports, such as financial assistance for medication costs.

However, some patients identified communication gaps between team members as a source of frustration. In several cases, patients felt that they had to relay information between professionals or deal with delays caused by a lack of coordination. This issue has been identified in other studies on multidisciplinary care, where communication breakdowns between team members can reduce the effectiveness of collaborative efforts and increase the burden on patients (Hulscher et al., 2013). Improving communication between team

members through regular meetings or shared care plans could help ensure that all professionals are aligned in their approach to patient care.

Impact on Health Outcomes and Medication Adherence

One of the most significant findings was the positive impact of multidisciplinary care on medication adherence and health outcomes. Patients frequently mentioned that the pharmacist's involvement helped them adhere to their medication regimens more consistently, reducing complications and improving their overall health. This is consistent with previous studies that have shown pharmacist-led interventions to be effective in enhancing medication adherence and improving chronic disease management (Santschi et al., 2011). Moreover, the collaboration between the pharmacist and laboratory specialist allowed for timely adjustments to medication based on lab results, which contributed to better control of chronic conditions such as diabetes and heart disease.

The involvement of the social services administrator was also crucial in addressing non-medical factors that affect health outcomes, such as financial barriers to accessing medications. This highlights the importance of addressing social determinants of health in chronic disease management, as patients who cannot afford their medications or face other social barriers are less likely to achieve positive health outcomes (Braveman & Gottlieb, 2014).

Challenges and Suggestions for Improvement

While the multidisciplinary care model was generally well-received, several patients identified areas for improvement. The most prominent challenge was the need for better communication and coordination between team members. Some patients felt that communication between the pharmacist, laboratory specialist, and social services administrator was not always seamless, leading to delays in care or confusion about changes in their treatment plan. This finding underscores the need for improved coordination mechanisms, such as shared care plans, regular team meetings, or integrated electronic health records, to facilitate communication and reduce the burden on patients to relay information between professionals (Hibbard and Greene, 2013).

Another suggestion for improvement was to provide more education to patients about the roles of each team member. Several participants noted that they were unaware of the full scope of the social services administrator's role until they needed assistance with financial or social support. By offering clearer explanations of each professional's contributions early in the care process, healthcare teams can ensure that patients are more informed and engaged in their care.

Implications for Practice

The findings from this study have important implications for improving the delivery of multidisciplinary care in chronic disease management. First, healthcare providers should prioritize patient education about the roles of each professional in the multidisciplinary team to ensure that patients understand how each member contributes to their care. This could be done through informational materials provided at the start of care or during initial consultations with the team.

Second, improving communication between team members is critical to enhancing the effectiveness of multidisciplinary care. Regular team meetings, shared care plans, and integrated communication tools can help ensure that all professionals are aligned and that patients do not have to navigate communication gaps between providers.

Finally, addressing social determinants of health through the active involvement of social services administrators is essential for improving health outcomes in chronic disease management. Ensuring that patients have access to the necessary social and financial support will help them adhere to treatment plans and improve their overall well-being.

Limitations

This study has several limitations. First, the sample size was relatively small, with 20 participants, and the findings may not be generalizable to all chronic disease patients. Additionally, the study was conducted in a single tertiary hospital, which may limit the applicability of the results to other healthcare settings. Future research could expand the study to multiple healthcare facilities and include a larger, more diverse sample of patients.

Future Research

Future studies could explore the long-term effects of multidisciplinary care on patient outcomes, particularly in relation to chronic disease progression and hospital readmissions. Additionally, research into the cost-effectiveness of multidisciplinary care models could provide valuable insights for healthcare institutions considering implementing such approaches. Further studies might also explore the perspectives of healthcare professionals on multidisciplinary collaboration to identify barriers and facilitators to effective teamwork.

Conclusion

This study demonstrates that patients generally perceive multidisciplinary care as beneficial for managing chronic diseases, particularly in improving medication adherence and health outcomes. However, challenges such as communication gaps between team members and a lack of clarity about specific roles remain. Addressing these issues through improved coordination and patient education could enhance the effectiveness of multidisciplinary care and contribute to better outcomes for patients with chronic diseases.

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