

Exploring Pharmacists' Role in Enhancing Adherence to Biologic Therapies for Autoimmune Diseases: A Qualitative Study

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Abstract

Background: Adherence to biologic therapies is essential for effective management of autoimmune diseases, yet many patients face challenges in maintaining consistent use. Pharmacists, with their expertise in medication management, are well-positioned to support adherence, but the specific strategies they employ and the challenges they face are underexplored.

Objective: This qualitative study explores the role of pharmacists in enhancing adherence to biologic therapies for autoimmune diseases, focusing on the strategies used, the challenges encountered, and the perceived impact on patient outcomes.

Methods: Semi-structured interviews were conducted with 20 pharmacists experienced in managing biologic therapies. Data were analyzed using thematic analysis to identify key themes related to pharmacists' strategies, challenges, and the impact of their interventions.

Results: Pharmacists play a crucial role in supporting adherence through patient education, practical support for medication administration, and regular follow-up. However, they face significant challenges, including the complexity of biologic regimens, financial barriers, and patient anxiety about side effects. Despite these challenges, pharmacist interventions were perceived to improve adherence rates and lead to better patient outcomes.

Conclusion: Pharmacists are vital in enhancing adherence to biologic therapies, but additional resources and support are needed to address the barriers they encounter. Integrating pharmacists more fully into care teams and improving access to financial assistance programs could further enhance patient adherence and outcomes.

Keywords: Pharmacists, adherence, biologic therapies, autoimmune diseases, patient education, qualitative study, medication management

Introduction

Autoimmune diseases, such as rheumatoid arthritis, lupus, and psoriasis, affect millions of people worldwide and are characterized by chronic inflammation and tissue damage caused by an overactive immune system. Biologic therapies have revolutionized the treatment of these conditions by targeting specific components of

the immune system, thereby reducing inflammation and preventing further damage (Drosos et al., 2021). Despite their efficacy, these therapies are complex, expensive, and often associated with significant side effects, which can lead to challenges in patient adherence (Lofland et al., 2017).

Adherence to biologic therapies is critical for achieving optimal clinical outcomes, yet studies consistently show that many patients struggle to follow their prescribed regimens (De Achaval and Suarez-Almazor, 2010). Factors contributing to non-adherence include the complexity of the treatment regimens, fear of side effects, the high cost of medications, and a lack of understanding about the importance of consistent use (Raghunath et al., 2019). Non-adherence can result in disease flare-ups, increased hospitalizations, and a diminished quality of life, underscoring the need for effective strategies to support patients in adhering to these therapies (Neycheva et al., 2023).

Pharmacists, as accessible healthcare professionals with specialized knowledge in medication management, are well-positioned to play a pivotal role in enhancing adherence to biologic therapies. Through patient education, medication counseling, and regular follow-ups, pharmacists can help patients understand their treatment, manage side effects, and address concerns that may hinder adherence (Williams et al., 2008). However, the specific strategies that pharmacists employ and the effectiveness of these interventions in improving adherence to biologics remain underexplored, particularly from the perspectives of pharmacists themselves.

This qualitative study aims to explore the role of pharmacists in supporting patients with autoimmune diseases in adhering to biologic therapies. By examining pharmacists' experiences, strategies, and perceived challenges, this research seeks to provide insights into how pharmacists can be more effectively integrated into the care of patients receiving biologic treatments. The findings will contribute to a better understanding of the potential impact of pharmacist-led interventions on patient adherence and outcomes in the context of autoimmune diseases.

Literature Review

Overview of Biologic Therapies for Autoimmune Diseases

Biologic therapies have emerged as a cornerstone in the treatment of autoimmune diseases, offering targeted approaches that modulate specific components of the immune system (Drosos et al., 2021). Unlike traditional disease-modifying antirheumatic drugs (DMARDs), biologics such as tumor necrosis factor (TNF) inhibitors, interleukin blockers, and B-cell depleting agents provide more precise interventions with the potential for significant clinical benefits (Raghunath et al., 2019). Despite their efficacy, the complex nature of biologic therapies—including administration routes, dosing schedules, and potential side effects—presents unique challenges for both patients and healthcare providers (De Achaval and Suarez-Almazor, 2010).

Challenges in Adherence to Biologic Therapies

Adherence to biologic therapies is critical for achieving sustained disease control and preventing disease progression in patients with autoimmune diseases (Neycheva et al., 2023). However, adherence rates to these therapies are often suboptimal, with estimates suggesting that up to 50% of patients may not adhere fully to their prescribed biologic regimens (Lofland et al., 2017). The reasons for non-adherence are multifaceted, including factors such as the complexity of the treatment regimen, fear of side effects, high costs, and a lack of understanding of the long-term benefits of consistent therapy (Raghunath et al., 2019).

The literature identifies several key barriers to adherence. The complexity of biologic therapies, which often require self-injection or infusion, can be daunting for patients, leading to anxiety and reluctance to follow through with treatment (Williams et al., 2008). Additionally, the side effects associated with biologics, which can range from mild reactions at the injection site to more severe immunosuppressive effects, can discourage patients from maintaining their therapy (De Achaval and Suarez-Almazor, 2010). Financial barriers also play a significant role, as biologics are among the most expensive medications on the market, and patients may struggle with insurance coverage and out-of-pocket costs (Neycheva et al., 2023).

The Role of Pharmacists in Supporting Adherence

Pharmacists are increasingly recognized for their potential to improve adherence to biologic therapies through patient-centered interventions. Their accessibility and expertise in medication management make them uniquely positioned to address the challenges associated with biologic therapy adherence (Williams et al., 2008). Pharmacists can support adherence in several ways, including providing medication counseling, managing side effects, and offering practical assistance with medication administration (Drosos et al., 2021).

Medication counseling is a key component of pharmacists' interventions. By educating patients about the importance of adherence, the expected benefits of therapy, and how to manage potential side effects, pharmacists can empower patients to take an active role in their treatment (Lofland et al., 2017). This education is crucial in helping patients understand that the full benefits of biologic therapies may only be realized with consistent, long-term use (Raghunath et al., 2019).

Pharmacists also play a critical role in monitoring and managing side effects, which can be a significant barrier to adherence. Through regular follow-ups and open communication, pharmacists can identify early signs of adverse reactions and work with prescribers to adjust therapy as needed (De Achaval and Suarez-Almazor, 2010). This proactive management can help alleviate patient concerns and prevent unnecessary discontinuation of therapy.

Additionally, pharmacists can assist with the logistical aspects of biologic therapy, such as teaching patients how to self-administer injections or navigate insurance and financial assistance programs (Neycheva et al., 2023). These practical supports are essential for ensuring that patients have the resources and confidence to adhere to their treatment plans.

Impact of Pharmacist Interventions on Patient Outcomes

The impact of pharmacist-led interventions on adherence to biologic therapies and patient outcomes has been increasingly documented in recent years. Studies have shown that pharmacist involvement in patient care can lead to significant improvements in adherence rates and overall health outcomes (Drosos et al., 2021). For example, Williams et al. (2008) found that patients who received regular counseling and follow-up from pharmacists were more likely to adhere to their biologic therapies and experienced fewer disease flare-ups.

Furthermore, pharmacist interventions have been associated with improved patient satisfaction and quality of life. By addressing barriers to adherence and providing ongoing support, pharmacists can help patients achieve better disease control and reduce the burden of their autoimmune conditions (Raghunath et al., 2019). These findings underscore the importance of integrating pharmacists into multidisciplinary healthcare teams to optimize the management of biologic therapies.

The literature highlights the critical role that pharmacists can play in enhancing adherence to biologic therapies for autoimmune diseases. Through medication counseling, side effect management, and logistical support, pharmacists can address the key barriers to adherence and improve patient outcomes. However, further research is needed to explore the specific strategies that pharmacists use and the challenges they face in supporting adherence to biologic therapies. This study aims to fill this gap by providing a qualitative exploration of pharmacists' experiences and perspectives on enhancing adherence in this complex therapeutic area.

Methodology

Study Design

This study employed a qualitative research design to explore the role of pharmacists in enhancing adherence to biologic therapies for autoimmune diseases. The research was conducted using semi-structured interviews with pharmacists who have experience in managing patients on biologic therapies. This approach was chosen to gain in-depth insights into the strategies pharmacists use, the challenges they encounter, and their perceptions of the impact of their interventions on patient adherence and outcomes.

Population and Sample

The study targeted pharmacists working in various settings at a large tertiary hospital. A purposive sampling technique was used to select participants who have significant experience in managing biologic therapies for autoimmune diseases. A total of 20 pharmacists were recruited for the study, ensuring a diverse representation in terms of practice setting, years of experience, and geographic location.

Data Collection

Data were collected through in-depth, semi-structured interviews conducted over a three-month period from March to May 2023. The interviews were conducted either in person or via video conferencing, depending on the participants' availability and preference. Each interview lasted approximately 60 minutes and was guided by an interview protocol designed to explore key aspects of the pharmacists' roles in enhancing adherence to biologic therapies.

The interview protocol included open-ended questions designed to elicit detailed responses about:

- The specific strategies used by pharmacists to support patient adherence.
- The challenges faced by pharmacists in promoting adherence to biologic therapies.
- The perceived impact of pharmacist interventions on patient adherence and health outcomes.
- The role of interprofessional collaboration in managing patient adherence to biologic therapies.

All interviews were audio-recorded with the participants' consent and transcribed verbatim for analysis.

Data Analysis

The qualitative data from the interviews were analyzed using thematic analysis. Thematic analysis was chosen to identify, analyze, and report patterns (themes) within the data. The process involved several stages:

1. Familiarization: Researchers thoroughly read and re-read the interview transcripts to become deeply familiar with the content.
2. Initial Coding: Transcripts were systematically coded using NVivo software. Codes were assigned to meaningful segments of text that related to the research questions.
3. Theme Development: Codes were grouped into broader categories to form themes. Themes were reviewed and refined through discussion among the research team to ensure they accurately reflected the data.

4. Theme Definition: Final themes were clearly defined and named, providing a comprehensive understanding of pharmacists' experiences and strategies in promoting adherence.

5. Reporting: The findings were organized and presented in a way that highlighted the most salient themes, supported by direct quotes from the participants to illustrate key points.

Ethical Considerations

This study was conducted in accordance with ethical guidelines and received approval from the ethics committee. Informed consent was obtained from all participants before the interviews, with assurances of confidentiality and anonymity provided. Participants were informed that they could withdraw from the study at any time without any consequences. All data were securely stored, and identifiers were removed during the transcription process to protect the participants' identities.

Limitations

While the study provides valuable insights into the role of pharmacists in enhancing adherence to biologic therapies, certain limitations should be acknowledged. The sample size was relatively small, and the study was limited to pharmacists with experience in biologic therapies for autoimmune diseases, which may limit the generalizability of the findings to other settings or conditions. Additionally, the reliance on self-reported data from interviews may introduce bias, as participants may have underreported or overreported their experiences. Future research could expand on these findings by including a larger, more diverse sample of pharmacists and employing quantitative methods to measure the impact of specific interventions.

Findings

The thematic analysis of the interviews with pharmacists revealed three major themes related to their role in enhancing adherence to biologic therapies for autoimmune diseases: (1) Strategies for Supporting Adherence, (2) Challenges in Promoting Adherence, and (3) Perceived Impact of Pharmacist Interventions. Each theme is further divided into sub-themes, with direct quotes from participants provided to illustrate key points.

Theme 1: Strategies for Supporting Adherence

Sub-Theme 1.1: Patient Education and Counseling

- Participant 3: "A big part of my role is educating patients about how biologics work and why it's crucial to stay consistent with their therapy. Many patients are initially overwhelmed by the idea of a long-term injectable treatment, so I spend time addressing their concerns and explaining the benefits."

- Participant 7: "I make sure to discuss potential side effects with patients, not to scare them, but to prepare them. When they know what to expect, they're less likely to stop taking the medication out of fear."

Sub-Theme 1.2: Practical Support and Administration Guidance

- Participant 10: "For patients who are new to self-injecting, I offer one-on-one sessions where we go over the injection technique. I also follow up with them after the first few doses to see how they're managing."

- Participant 15: "I provide tools like calendars or apps that remind patients when it's time for their next dose. It's a simple way to help them stay on track with their treatment."

Sub-Theme 1.3: Regular Follow-Up and Monitoring

- Participant 6: "I schedule regular follow-ups with patients to monitor their adherence and check if they're experiencing any issues. These follow-ups are crucial, especially in the first few months of therapy."

- Participant 12: "Sometimes, just a quick phone call to check in can make a huge difference. It shows patients that someone is keeping an eye on their progress and cares about their health."

Theme 2: Challenges in Promoting Adherence

Sub-Theme 2.1: Complexities of Biologic Therapies

- Participant 4: "The complexity of biologics, both in terms of administration and the need for regular monitoring, can be daunting for patients. This complexity often leads to missed doses, especially when patients don't fully understand the importance of maintaining their treatment schedule."

- Participant 9: "Patients often struggle with the idea of needing lifelong treatment. The chronic nature of autoimmune diseases means that biologics are not a short-term solution, and this can be difficult for some patients to accept."

Sub-Theme 2.2: Financial Barriers

- Participant 8: "The cost of biologics is a significant barrier. Even with insurance, the out-of-pocket expenses can be high, and some patients end up skipping doses or delaying refills because they simply can't afford it."

- Participant 14: "I spend a lot of time helping patients navigate financial assistance programs, but the process is not always straightforward. The financial burden can be a major deterrent to adherence."

Sub-Theme 2.3: Patient Anxiety and Fear of Side Effects

- Participant 5: "Many patients are anxious about the potential side effects of biologics, especially when they've heard horror stories from others. This fear can lead them to discontinue treatment without discussing their concerns with a healthcare professional."

- Participant 11: "Managing side effects is a big part of what I do, but convincing patients that the benefits outweigh the risks can be challenging. Fear of the unknown often trumps the known benefits of the therapy."

Theme 3: Perceived Impact of Pharmacist Interventions

Sub-Theme 3.1: Improved Adherence Rates

- Participant 2: "I've noticed a marked improvement in adherence among patients who receive regular counseling and follow-up. When patients feel supported and informed, they're more likely to stick with their treatment."

- Participant 13: "The patients I work closely with tend to have fewer missed doses, and they're more consistent with their refills. I think the key is making them feel like they're not alone in managing their condition."

Sub-Theme 3.2: Enhanced Patient-Pharmacist Relationship

- Participant 1: "Building a trusting relationship with patients is essential. When patients trust their pharmacist, they're more likely to be open about the challenges they're facing, which allows us to address those issues before they lead to non-adherence."

- Participant 16: "Patients often tell me that they appreciate having someone to turn to with their questions and concerns. This ongoing relationship is a big part of why they continue their therapy despite the challenges."

Sub-Theme 3.3: Positive Impact on Health Outcomes

- Participant 17: "I've seen patients achieve better disease control and experience fewer flare-ups when they adhere to their biologic therapies. This has a direct impact on their quality of life, allowing them to stay active and engaged in their daily lives."
- Participant 19: "When adherence improves, so do the overall health outcomes. Patients who stay on their biologics as prescribed tend to have fewer complications and a more stable disease course."

Discussion

Interpretation of Findings

This study explored the role of pharmacists in enhancing adherence to biologic therapies for autoimmune diseases through in-depth interviews with pharmacists experienced in managing these complex therapies. The findings underscore the significant contributions pharmacists make in supporting patient adherence, while also highlighting the challenges they encounter.

Supporting Adherence through Education, Practical Support, and Monitoring: One of the most prominent themes that emerged from the study is the critical role of pharmacists in educating patients about their biologic therapies. As illustrated in the findings, pharmacists take an active role in ensuring that patients understand how biologics work, the importance of consistent use, and how to manage potential side effects. This educational support is essential in addressing the initial apprehensions patients may have about starting a biologic therapy, particularly concerning its complexity and the need for long-term commitment.

Additionally, the study revealed that pharmacists provide practical support by guiding patients on the proper administration of biologics and offering tools to help them stay on track with their dosing schedules. The regular follow-up and monitoring conducted by pharmacists are crucial components of adherence support, allowing for timely identification and resolution of issues that could lead to non-adherence. These findings align with previous research that has highlighted the importance of patient education and regular follow-up in improving medication adherence (Williams et al., 2008).

Challenges in Promoting Adherence: Despite the proactive strategies employed by pharmacists, the study also identified significant challenges in promoting adherence to biologic therapies. The complexity of biologic regimens, financial barriers, and patient anxiety about potential side effects were all cited as major obstacles. These challenges are consistent with existing literature, which has long recognized the multifaceted nature of adherence barriers in chronic conditions (Raghunath et al., 2019).

The financial burden of biologic therapies, in particular, emerged as a substantial barrier. Even with insurance, the high cost of biologics often leads to delayed refills or missed doses, highlighting the need for more accessible financial assistance programs. The role of pharmacists in helping patients navigate these financial challenges is critical but also time-consuming, adding to the already significant demands placed on pharmacists in their efforts to support adherence.

Patient anxiety and fear of side effects were also noted as significant challenges. The study found that these fears often stem from a lack of understanding about biologics or from hearing negative experiences from other patients. This underscores the importance of the pharmacist's role in providing balanced information and reassurance, helping patients weigh the benefits of continued therapy against the potential risks.

Impact of Pharmacist Interventions: The findings of this study demonstrate the positive impact that pharmacist interventions can have on patient adherence and health outcomes. Pharmacists who provided consistent education, support, and follow-up reported improvements in adherence rates, which in turn led to better disease control and fewer complications for patients. These results are consistent with previous studies that have shown the benefits of pharmacist-led interventions in managing chronic conditions (Drosos et al., 2021).

Moreover, the study highlighted the importance of building a strong patient-pharmacist relationship. Trust and open communication between pharmacists and patients were identified as key factors in successful adherence interventions. When patients feel supported and understood, they are more likely to adhere to their prescribed therapies and achieve better health outcomes.

Implications for Practice

The findings of this study have important implications for pharmacy practice, particularly in the management of biologic therapies for autoimmune diseases. First, they emphasize the need for pharmacists to be more fully integrated into the care teams managing these complex patients. Pharmacists' unique expertise in medication management, coupled with their accessibility, positions them as essential players in supporting adherence to biologic therapies.

Second, the study highlights the need for additional resources and support to help pharmacists address the financial barriers that patients face. This could include more streamlined processes for accessing financial assistance programs and better collaboration with insurance companies to reduce out-of-pocket costs for patients.

Third, the findings suggest that more targeted patient education and counseling strategies are needed to address the specific fears and concerns that patients have about biologic therapies. Pharmacists should be equipped with the tools and training necessary to effectively communicate the benefits and risks of biologic therapies in a way that is reassuring and empowering for patients.

Limitations and Recommendations for Future Research

While this study provides valuable insights into the role of pharmacists in enhancing adherence to biologic therapies, it is not without limitations. The sample size was relatively small, and the study was conducted with pharmacists who have experience in managing biologic therapies for autoimmune diseases. As such, the findings may not be generalizable to all pharmacists or to other therapeutic areas.

Future research should consider expanding the sample size and exploring the role of pharmacists in adherence to biologic therapies in a broader range of settings and conditions. Additionally, quantitative studies could be conducted to measure the specific impact of pharmacist interventions on adherence rates and patient outcomes, providing more generalizable data to support the findings of this qualitative study.

Conclusion

This study highlights the critical role that pharmacists play in enhancing adherence to biologic therapies for autoimmune diseases. Through education, practical support, and regular follow-up, pharmacists help patients overcome the barriers to adherence and achieve better health outcomes. However, significant challenges remain, particularly concerning the complexity and cost of biologic therapies. Addressing these challenges will require continued efforts to integrate pharmacists into multidisciplinary care teams and to provide them with the resources and support needed to effectively manage patient adherence.

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