TPM Vol. 32, No. S1, 2025
ISSN: 1972-6325
https://www.tpmap.org/

PERCEPTIONS AND EXPERIENCES OF STAKEHOLDERS REGARDING PHARMACISTS' ROLES IN AMBULATORY CARE DEPRESCRIBING

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Published: 12-05-2025 **Accepted: 15-03-2025**

Abstract

The increasing prevalence of polypharmacy and its associated risks, especially among older adults, has prompted growing interest in deprescribing initiatives within ambulatory care settings. Pharmacists, with their specialized medication knowledge, are uniquely positioned to contribute to these initiatives. This study examines the perceptions and experiences of various stakeholders regarding pharmacists' roles in ambulatory care deprescribing. Through a comprehensive analysis of existing literature, this review synthesizes the perspectives of physicians, nurses, patients, caregivers, and pharmacists themselves. The findings reveal a complex landscape of facilitators and barriers influencing pharmacist-led deprescribing, including interprofessional relationships, organizational factors, patient-centered considerations, and pharmacist-specific enablers and limitations. Stakeholder perceptions highlight the value of pharmacists' medication expertise, their patient-centered approaches, and their potential to serve as catalysts for deprescribing in collaborative healthcare environments. However, challenges persist related to role clarity, professional hierarchies, resource constraints, and varying levels of patient receptivity. The review concludes with recommendations for enhancing pharmacists' contributions to deprescribing in ambulatory care settings through educational initiatives, system-level changes, interprofessional collaboration frameworks, and patient engagement strategies. These insights provide a foundation for optimizing pharmacist involvement in deprescribing practices, ultimately contributing to improved medication management and patient outcomes in ambulatory care.

Keywords: Deprescribing, pharmacist roles, ambulatory care, stakeholder perceptions, polypharmacy, interprofessional collaboration

INTRODUCTION

The increasing complexity of medication regimens, particularly among older adults and those with multiple chronic conditions, presents significant challenges to healthcare systems globally. Polypharmacy, commonly defined as the concurrent use of multiple medications, is associated with adverse drug reactions, drug-drug interactions, reduced medication adherence, increased healthcare utilization, and diminished quality of life (Mair et al., 2020). In response to these concerns, deprescribing has emerged as an important clinical practice aimed at optimizing medication regimens through the supervised withdrawal of inappropriate or unnecessary medications.

Deprescribing is defined as "the systematic process of identifying and discontinuing drugs in instances in which existing or potential harms outweigh existing or potential benefits within the context of an individual patient's care goals, current level of functioning, life expectancy, values, and preferences" (Reeve et al., 2015, p. 1258). This patient-centered approach to medication optimization acknowledges that medication appropriateness changes over time, and regular review is essential for ensuring medications continue to align with therapeutic goals and patient preferences (Woodward, 2003). As the concept and practice of deprescribing has evolved, it has shifted from being viewed as merely the discontinuation of medications to a more comprehensive process involving careful assessment, planning, implementation, and monitoring (Reeve et al., 2015).

Ambulatory care settings, including primary care practices, outpatient clinics, and community pharmacies, represent crucial environments for implementing deprescribing initiatives. These settings provide ongoing care for patients with chronic conditions who often have complex medication regimens and are at risk for medication-related problems. Within these contexts, pharmacists possess specialized knowledge and skills that position them as valuable contributors to the deprescribing process (Wright et al., 2019). Their expertise in pharmacology, drug interactions, medication administration, and patient education enables them to identify potentially inappropriate medications and collaborate with other healthcare providers to implement deprescribing plans.

However, the successful integration of pharmacists into deprescribing practices within ambulatory care depends not only on their clinical capabilities but also on how their roles are perceived and experienced by various stakeholders in the healthcare ecosystem. These stakeholders include physicians, nurses, patients, caregivers, healthcare administrators, and pharmacists themselves. Their perceptions and experiences significantly influence the acceptance, implementation, and effectiveness of pharmacist-led deprescribing initiatives.

Understanding these diverse perspectives is essential for optimizing pharmacists' contributions to deprescribing and ultimately improving medication management for patients. As noted by Kassis et al. (2024), stakeholder perceptions can reveal important insights about interprofessional dynamics, organizational factors, and patient considerations that shape deprescribing practices. By examining these perceptions and experiences, we can identify facilitators and barriers to pharmacist involvement in deprescribing, develop strategies to enhance collaborative practice, and improve patient outcomes through more appropriate medication use.

This study aims to comprehensively explore stakeholder perceptions and experiences regarding pharmacists' roles in ambulatory care deprescribing. Drawing on recent qualitative and mixed-methods research, we synthesize findings about how different stakeholders view pharmacist contributions to the deprescribing process, identify common themes across stakeholder groups, and discuss implications for practice, policy, and future research. By highlighting both convergent and divergent perspectives, this review provides a nuanced understanding of the complex interprofessional and patient-provider dynamics that influence deprescribing practices in ambulatory care settings.

METHODS

This review synthesizes existing literature on stakeholder perceptions and experiences regarding pharmacists' roles in ambulatory care deprescribing. The methodological approach was informed by principles of qualitative evidence synthesis and thematic analysis, which enable the integration of findings from multiple qualitative studies to develop a comprehensive understanding of complex phenomena (Mohammed et al., 2016; Nowell et al., 2017).

Search Strategy and Study Selection

A comprehensive search of electronic databases including PubMed, EMBASE, CINAHL, and PsycINFO was conducted to identify relevant studies published in English. Search terms included combinations of keywords related to deprescribing (e.g., "deprescrib*," "medication discontinuation," "inappropriate prescribing"), pharmacist roles (e.g., "pharmacist," "clinical pharmacy services," "pharmaceutical care"), ambulatory care settings (e.g., "primary care," "community pharmacy," "outpatient"), and stakeholder perspectives (e.g., "perception," "experience," "attitude," "view").

Studies were eligible for inclusion if they: (1) focused on deprescribing in ambulatory care settings; (2) included pharmacists as key stakeholders or examined pharmacist roles; (3) explored perceptions, experiences, or attitudes of stakeholders including healthcare professionals, patients, or caregivers; and (4) employed qualitative or mixed-methods research approaches. Studies conducted solely in acute care or long-term care settings were excluded, as were quantitative studies without substantial qualitative components.

The selection process involved screening titles and abstracts followed by full-text review of potentially eligible studies. In accordance with recommendations for systematic reviews (Stoll et al., 2019), two reviewers independently assessed articles for inclusion to enhance methodological rigor.

Data Extraction and Analysis

Data extraction focused on study characteristics (authors, publication year, country, setting, methodology), participant information (stakeholder groups, sample size), and key findings related to

perceptions and experiences of pharmacist roles in deprescribing. Particular attention was given to verbatim quotes from participants that illustrated important themes.

The analytical approach was guided by principles of thematic synthesis, which involves the systematic coding of data from primary studies, organization of these codes into descriptive themes, and development of analytical themes that go beyond the primary studies to generate new interpretive constructs (Nowell et al., 2017). This process involved:

1. Familiarization with the data through repeated reading of included studies
2. Initial coding of findings related to stakeholder perceptions and experiences
3. Grouping similar codes into descriptive themes
4. Reviewing and refining themes across the dataset
5. Defining and naming themes to capture their essence
6. Producing a comprehensive synthesis that articulates the relationships between themes

To enhance trustworthiness and rigor, the analysis incorporated reflexive practices, peer debriefing, and attention to negative or disconfirming cases within the literature (Renjith et al., 2021).

Quality Appraisal

The methodological quality of included studies was assessed using criteria adapted from the Consolidated Criteria for Reporting Qualitative Research (COREQ) framework (Tong et al., 2007). This appraisal considered factors such as researcher reflexivity, sampling approaches, data collection methods, analytical rigor, and overall trustworthiness. While no studies were excluded based on quality assessment, this evaluation informed the interpretation of findings and identification of methodological limitations within the literature.

Overview of Included Studies

The literature search yielded studies conducted across diverse geographical contexts, including Australia, Canada, the United States, European countries, and parts of Asia. This geographical diversity enriches the synthesis by capturing variations in healthcare systems, professional roles, and cultural contexts that influence deprescribing practices.

The methodological approaches employed in these studies included semi-structured interviews, focus groups, case studies, and mixed-methods designs. Participants represented multiple stakeholder groups:

- Pharmacists working in community pharmacies, primary care clinics, and specialized ambulatory care services
- Physicians, including general practitioners and specialists
- Nurses and nurse practitioners
- Patients, particularly older adults with polypharmacy
- Caregivers and family members
- Healthcare administrators and policy makers

This diverse representation of stakeholders allows for triangulation of perspectives and identification of both common themes and divergent viewpoints regarding pharmacists' roles in deprescribing.

The settings examined in these studies encompassed various ambulatory care environments:

- Community pharmacies
- Primary care practices and family medicine clinics
- Specialized outpatient clinics (e.g., memory clinics, pain management centers)
- Integrated care teams
- Medication therapy management services

This range of settings provides insight into how context-specific factors shape perceptions of pharmacist roles and the implementation of deprescribing initiatives.

Pharmacists' Self-Perceptions of Their Role in Deprescribing

Professional Identity and Evolving Roles

Pharmacists' perceptions of their own roles in deprescribing are shaped by broader understandings of professional identity and evolving scope of practice. Studies reveal that many pharmacists view deprescribing as a natural extension of their medication expertise and aligned with their professional responsibility to optimize medication therapy (Farrell et al., 2020; Korenvain et al., 2020). This perspective is captured by a community pharmacist who stated: "I think as medication experts, we are best positioned to identify potentially inappropriate medications and initiate conversations about deprescribing" (Korenvain et al., 2020, p. 1748).

The evolution of pharmacy practice from a primarily dispensing role to a more clinically oriented and patient-centered profession has created both opportunities and tensions regarding pharmacists' involvement in deprescribing. Pharmacists who embrace an expanded clinical role often express enthusiasm about contributing to deprescribing initiatives, viewing them as opportunities to utilize their specialized knowledge and skills more fully (Jordan et al., 2022a). As one pharmacist working in general practice explained: "This is what we're trained to do. Looking at medications holistically, considering the patient's entire situation... it's rewarding to use these skills to help reduce medication burden" (Jordan et al., 2022a, p. 524).

However, this expanded role is not universally embraced by all pharmacists. Some express uncertainty about stepping into what they perceive as traditionally physician-dominated territory. This ambivalence is reflected in comments like: "I know I have the knowledge to identify medications that could be deprescribed, but sometimes I wonder if that's overstepping my boundaries" (Gemmeke et al., 2021, p. 1538). This hesitation reveals ongoing negotiation of professional boundaries and scope of practice within the context of collaborative healthcare.

Perceived Competencies and Knowledge Gaps

Pharmacists generally express confidence in their medication-specific knowledge that supports deprescribing, including understanding of pharmacokinetics, drug interactions, adverse effects, and therapeutic alternatives (Farrell et al., 2020; Gemmeke et al., 2021). They view this expertise as their unique contribution to deprescribing processes, distinguishing their role from that of other healthcare providers.

Despite this confidence in their medication knowledge, pharmacists identify several areas where they perceive knowledge gaps or need for additional training to effectively engage in deprescribing:

1. **Clinical assessment skills**: Some pharmacists express uncertainty about their ability to evaluate the clinical appropriateness of medications without full access to patient information or advanced assessment skills. As one pharmacist noted: "We know the medications inside out, but sometimes we lack the clinical context to make fully informed recommendations" (Kennie-Kaulbach et al., 2020, p. 6).
2. **Deprescribing-specific knowledge**: Pharmacists identify a need for more specific education on deprescribing protocols, tapering schedules, withdrawal symptoms, and monitoring parameters for commonly deprescribed medications (Korenvain et al., 2020).
3. **Communication strategies**: Many pharmacists express a desire for enhanced training in communication skills specific to deprescribing conversations, which can be sensitive and complex. As one community pharmacist explained: "It's not just about knowing which medications should be stopped; it's about knowing how to have that conversation in a way that doesn't alarm the patient or make them feel their previous care was inadequate" (Farrell et al., 2020, p. 42).
4. **Patient-centered approaches**: Pharmacists recognize the importance of aligning deprescribing recommendations with patient values, preferences, and goals but sometimes feel underprepared to elicit and incorporate these factors into their practice (Korenvain et al., 2020).

These perceived knowledge gaps highlight opportunities for professional development and educational interventions to enhance pharmacists' confidence and capabilities in deprescribing.

Barriers and Facilitators to Pharmacist Involvement

Pharmacists identify numerous factors that either enable or constrain their participation in deprescribing activities within ambulatory care settings:

Facilitating Factors

1. **Collaborative practice models**: Integrated care models that formally incorporate pharmacists into healthcare teams are identified as powerful facilitators of pharmacist involvement in deprescribing. Pharmacists working in collaborative environments report greater confidence and effectiveness in contributing to deprescribing decisions (Jordan et al., 2022a; Kennie-Kaulbach et al., 2020).
2. **Access to patient information**: Comprehensive access to medical records, laboratory results, and medication histories significantly enhances pharmacists' ability to make informed deprescribing recommendations. As one pharmacist emphasized: "Having access to the full picture makes all the difference. I can see why medications were started, how the patient has responded, and make much more targeted recommendations" (Jordan et al., 2022a, p. 525).
3. **Established relationships with prescribers**: Pharmacists who have developed strong working relationships with physicians report more successful experiences with deprescribing initiatives. Trust between professionals emerges as a critical element that facilitates acceptance of pharmacist recommendations (Gerlach et al., 2020).
4. **Organizational support**: Workplace policies, procedures, and cultures that value and support pharmacist involvement in medication optimization activities, including adequate time allocation and appropriate remuneration, enable more consistent engagement in deprescribing (Korenvain et al., 2020).

Constraining Factors

1. **Time and workload pressures**: Across various ambulatory settings, pharmacists consistently identify time constraints and competing workload demands as significant barriers to engaging in deprescribing activities, which often require careful assessment, documentation, and follow-up (Farrell et al., 2020; Gemmeke et al., 2021).
2. **Limited authority**: Many pharmacists express frustration with their limited authority to implement deprescribing recommendations, which ultimately depend on prescriber approval. As one pharmacist stated: "I can identify the issue, develop a plan, and discuss it with the patient, but then I have to wait for the physician to actually make it happen... and sometimes it doesn't" (Korenvain et al., 2020, p. 1750).
3. **Information gaps**: Particularly in community pharmacy settings, pharmacists report challenges related to incomplete information about patients' medical conditions, laboratory values, and reasons for medication use, which limits their ability to make comprehensive deprescribing recommendations (Gemmeke et al., 2021).

4. **Financial disincentives**: Some pharmacists, especially in community settings, acknowledge the financial disincentives associated with deprescribing, as revenue is often tied to dispensing activities. As one participant noted: "There's an inherent conflict... professionally I want to help reduce unnecessary medications, but our business model still rewards dispensing more, not less" (Korenvain et al., 2020, p. 1751).
5. **Patient resistance**: Pharmacists report varying levels of patient receptivity to deprescribing discussions, with some patients expressing reluctance to discontinue long-standing medications despite potential inappropriateness (Farrell et al., 2020).

These self-identified barriers and facilitators provide valuable insight into the contextual factors that shape pharmacists' engagement in deprescribing and suggest potential interventions to enhance their contributions to this important clinical practice.

Physician Perspectives on Pharmacist Roles in Deprescribing

Recognition of Pharmacist Expertise

Physicians across various studies acknowledge the specialized medication knowledge that pharmacists bring to deprescribing processes. They particularly value pharmacists' expertise in pharmacokinetics, drug interactions, adverse effect profiles, and appropriate dosing and tapering schedules (Abou et al., 2022; Cross et al., 2020; Tangiisuran et al., 2022). This recognition is evident in statements such as: "Pharmacists have detailed knowledge about medications that goes beyond what most physicians possess. Their input on drug interactions and side effects is invaluable when considering which medications might be inappropriate" (Gerlach et al., 2020, p. 186).

Physicians specifically highlight several areas where they perceive pharmacists as particularly well-equipped to contribute to deprescribing:

1. **Identifying potentially inappropriate medications**: Many physicians view pharmacists as skilled in recognizing medications that may be unnecessary, harmful, or inconsistent with current guidelines (Cross et al., 2020).
2. **Providing medication histories**: Physicians value pharmacists' ability to compile comprehensive medication histories that include prescription medications, over-the-counter products, and supplements from multiple sources (Tangiisuran et al., 2022).
3. **Suggesting alternatives**: Pharmacists' knowledge of therapeutic alternatives, including non-pharmacological options, is viewed as a valuable resource when deprescribing requires substitution with more appropriate treatments (Abou et al., 2022).
4. **Developing tapering plans**: Physicians appreciate pharmacists' expertise in creating practical, evidence-based plans for gradually reducing and discontinuing medications, especially those with withdrawal potential (Gerlach et al., 2020).

This recognition of specialized knowledge establishes an important foundation for collaborative deprescribing initiatives, as it acknowledges complementary expertise between professions.

Collaborative Dynamics and Role Boundaries

While physicians generally acknowledge the value of pharmacist contributions to deprescribing, their perspectives on optimal collaborative models and role boundaries vary considerably. These variations reflect differences in practice settings, interprofessional experiences, and individual attitudes toward collaborative care.

Some physicians describe highly collaborative relationships characterized by mutual respect and shared decision-making. As one general practitioner explained: "I see it as a partnership. The pharmacist often initiates the discussion about potentially inappropriate medications, we discuss the options together, and then make a decision that incorporates both our perspectives" (Gerlach et al., 2020, p. 187). In these collaborative models, physicians view pharmacists as integral team members whose input is actively sought and valued.

However, other physicians express preferences for more hierarchical relationships in which pharmacists serve primarily consultative roles with final decision-making authority remaining firmly with the physician. This perspective is reflected in comments such as: "I appreciate the pharmacist's recommendations, but ultimately the responsibility for prescribing—or deprescribing—lies with me. I need to make the final decision" (Tangiisuran et al., 2022, p. 207). This view emphasizes the physician's legal and ethical responsibility for prescribing decisions while still acknowledging the value of pharmacist input.

Concerns about role encroachment emerge in some physicians' perspectives, particularly regarding direct patient counseling by pharmacists about medication discontinuation. Some physicians express discomfort with pharmacists independently discussing deprescribing with patients before physician consultation, fearing this might create confusion or undermine the physician-patient relationship (Abou et al., 2022). As one physician stated: "I would prefer that discussions about stopping medications come from me first. If the pharmacist raises it with the patient before I've had a chance to consider it, it can create awkward situations" (Tangiisuran et al., 2022, p. 208).

These varying perspectives on collaborative dynamics highlight the importance of clear communication, established protocols, and mutual understanding of professional roles within deprescribing initiatives.

They also suggest that one-size-fits-all approaches to pharmacist integration may be less effective than flexible models that can adapt to different interprofessional preferences and practice contexts.

Practical Considerations and Implementation Preferences

Physicians identify several practical considerations that influence their receptivity to pharmacist involvement in deprescribing and their preferences for how this involvement should be structured:

Communication Preferences

The mode, timing, and content of pharmacist communications significantly impact physician receptivity to deprescribing recommendations. Many physicians express preference for:

1. **Concise, evidence-based recommendations**: Physicians value recommendations that clearly identify the concern, provide supporting evidence, and suggest specific alternatives or actions (Cross et al., 2020).
2. **Integration with existing workflows**: Communications that fit within established clinical workflows and documentation systems are more likely to be well-received than those requiring additional steps or platforms (Abou et al., 2022).
3. **Appropriate timing**: Recommendations timed to coincide with planned medication reviews or regular appointments are often preferred over those requiring immediate attention outside of scheduled patient encounters (Tangiisuran et al., 2022).

Organizational Considerations

Physicians' perspectives are also shaped by organizational factors that facilitate or impede collaboration with pharmacists:

1. **Co-location advantages**: Physicians who work in settings where pharmacists are physically present express more positive views about collaboration, citing the benefits of face-to-face communication and relationship building (Gerlach et al., 2020; Jordan et al., 2022a).
2. **Time constraints**: Many physicians acknowledge that time pressures limit their ability to comprehensively review medication regimens and welcome pharmacist contributions that can make medication reviews more efficient (Abou et al., 2022).
3. **Established referral pathways**: Physicians favor clearly defined processes for referring patients to pharmacists for medication review and deprescribing assessments, which reduce coordination burdens and clarify expectations (Cross et al., 2020).
4. **Compensation models**: Some physicians note that current reimbursement structures may not adequately support the time required for collaborative deprescribing activities, creating disincentives for engagement (Tangiisuran et al., 2022).

Trust and Experience Factors

Physicians' previous experiences with pharmacist collaboration strongly influence their current attitudes toward pharmacist involvement in deprescribing:

1. **Demonstrated competence**: Positive past experiences with pharmacist recommendations build trust and increase physicians' willingness to engage in collaborative deprescribing (Gerlach et al., 2020).
2. **Consistency in collaboration**: Regular, ongoing collaboration with the same pharmacist(s) tends to foster stronger interprofessional relationships and greater receptivity to deprescribing recommendations compared to sporadic interactions with different pharmacists (Jordan et al., 2022a).
3. **Feedback loops**: Physicians value follow-up communications about the outcomes of implemented deprescribing recommendations, which build confidence in collaborative approaches (Cross et al., 2020).

These practical considerations highlight opportunities for tailoring pharmacist-physician collaboration models to address specific preferences and contextual factors, potentially enhancing the effectiveness of interprofessional deprescribing initiatives.

Patient and Caregiver Perspectives

Awareness and Understanding of Pharmacist Roles

Patients and caregivers demonstrate varying levels of awareness and understanding regarding pharmacists' potential roles in deprescribing. Their perspectives are influenced by previous experiences with pharmacists, cultural factors, healthcare system familiarity, and exposure to pharmacist services beyond traditional dispensing functions.

Many patients primarily associate pharmacists with medication dispensing and basic medication counseling rather than clinical decision-making or deprescribing activities (Cross et al., 2020; Reeve et al., 2013). As one patient expressed: "I see the pharmacist as someone who prepares my medications and explains how to take them. I wouldn't have thought to ask them about stopping medications—that's something I'd discuss with my doctor" (Cross et al., 2020, p. 684). This limited awareness of expanded pharmacist roles represents a potential barrier to patient engagement with pharmacist-led deprescribing initiatives.

However, patients who have experienced enhanced pharmacy services or participated in formal medication review programs often demonstrate greater recognition of pharmacists' clinical capabilities. These patients express more positive attitudes toward pharmacist involvement in medication optimization, including deprescribing (Jordan et al., 2022a; Reeve et al., 2013). As one such patient noted: "After having my medications reviewed by the pharmacist, I realized they know much more than

I thought. They spotted things my doctor had missed and explained why certain medications might not be necessary anymore" (Jordan et al., 2022a, p. 526).

Caregivers, particularly those managing medications for older adults with complex regimens, sometimes demonstrate greater awareness of pharmacists' potential contributions to deprescribing. Their intensive involvement in medication management often leads to more frequent interactions with pharmacists and greater appreciation for medication expertise (Dees et al., 2018). A caregiver described this perspective: "When you're juggling fifteen different medications for someone, you quickly learn to value the pharmacist's knowledge. They've been incredibly helpful in identifying which medications might be causing problems or aren't really needed anymore" (Dees et al., 2018, p. 585).

These varying levels of awareness suggest the importance of patient education about expanded pharmacist roles and the potential benefits of pharmacist involvement in medication optimization, including deprescribing.

Trust and Relationship Factors

Trust emerges as a critical factor influencing patient and caregiver receptivity to pharmacist-led deprescribing discussions. This trust is built upon several foundational elements:

1. **Established relationships**: Patients who have developed ongoing relationships with pharmacists express greater comfort with pharmacist involvement in deprescribing decisions (McCullough et al., 2016). One patient explained: "I've known my pharmacist for years. He knows my history and has always given me good advice. If he suggested stopping a medication, I'd take that seriously" (Jordan et al., 2022a, p. 526).
2. **Perceived expertise**: Patients' confidence in pharmacists' medication-specific knowledge influences their willingness to consider deprescribing recommendations. Demonstrations of expertise through detailed medication explanations and thoughtful recommendations enhance this trust (Cross et al., 2020).
3. **Communication quality**: Patients value pharmacists who communicate in clear, non-technical language and take time to address concerns thoroughly. These communication practices build trust in pharmacists as sources of medication advice (Reeve et al., 2013).
4. **Consistency with physician advice**: Many patients express greater comfort with pharmacist-led deprescribing when they perceive alignment between the pharmacist's recommendations and their physician's guidance. Apparent contradictions between healthcare providers can undermine trust and create uncertainty (Jordan et al., 2022b).
5. **Respectful approach**: Patients appreciate pharmacists who demonstrate respect for patient autonomy and preferences rather than adopting directive or paternalistic approaches to deprescribing (McCullough et al., 2016).

The importance of these trust factors is captured in one patient's reflection: "It's not just about what they know, it's about how they approach the conversation. When pharmacists take time to understand my concerns and explain things thoroughly, I'm much more likely to consider their suggestions about changing my medications" (Cross et al., 2020, p. 685).

Preferences for Pharmacist Involvement

Patients and caregivers express diverse preferences regarding how pharmacists should participate in deprescribing processes. These preferences reflect individual communication styles, health beliefs, experiences with healthcare systems, and perceptions of professional roles.

Communication Preferences

Many patients express preference for:

1. **Face-to-face interactions**: In-person discussions about medication changes are often preferred over written communications or telephone consultations, as they allow for more nuanced conversation and immediate clarification of questions (Cross et al., 2020; McCullough et al., 2016).
2. **Adequate time allocation**: Patients value unhurried conversations that allow thorough discussion of potential medication changes, including rationale, expected benefits, possible risks, and monitoring plans (Reeve et al., 2013).
3. **Balanced information**: Presentation of both benefits and risks of continuing versus discontinuing medications helps patients feel they are making informed decisions rather than being directed toward predetermined outcomes (Jordan et al., 2022b).
4. **Written reinforcement**: While preferring initial face-to-face discussions, many patients appreciate written summaries of deprescribing plans to reference after conversations (Cross et al., 2020).

Role Preferences

Patients hold varying views about optimal roles for pharmacists within the deprescribing process:

1. **Collaborative model**: Many patients express preference for models in which pharmacists work collaboratively with physicians, seeing value in multiple professional perspectives while maintaining the physician's central role in medication decisions (Jordan et al., 2022a).
2. **Educational focus**: Some patients prefer pharmacists to focus primarily on providing information and education about medications, viewing final decisions about continuation or discontinuation as shared between themselves and their physicians (Reeve et al., 2013).

3. **Comprehensive medication review**: Patients often value pharmacist-led comprehensive medication reviews that consider their entire medication regimen rather than focusing on isolated medications (Cross et al., 2020).
4. **Ongoing support**: Many patients express preference for continued pharmacist involvement throughout the deprescribing process, including follow-up to monitor for withdrawal symptoms or return of underlying symptoms (Jordan et al., 2022b).

These diverse preferences highlight the importance of flexible, patient-centered approaches to pharmacist involvement in deprescribing rather than rigid, standardized models. As one patient emphasized: "Everyone's different in how they want to approach medication changes. The important thing is that healthcare providers ask what works best for you rather than assuming they know" (Jordan et al., 2022a, p. 527).

Nurse Perspectives on Pharmacist Deprescribing Roles

Nurses represent important stakeholders in deprescribing processes, often serving as intermediaries between patients, physicians, and pharmacists, particularly in team-based ambulatory care settings. Their perspectives offer valuable insights into the interprofessional dynamics surrounding pharmacist involvement in deprescribing.

Appreciation of Complementary Expertise

Nurses generally express positive views of pharmacists' contributions to deprescribing, recognizing their specialized medication knowledge as complementary to nursing expertise in patient assessment and monitoring (Cross et al., 2020; Foley et al., 2020). As one nurse practitioner stated: "Pharmacists bring a depth of medication knowledge that enhances our team. They notice things about potential interactions or inappropriate medications that might not be obvious to the rest of us" (Cross et al., 2020, p. 684).

Nurses particularly value pharmacists' ability to:

1. **Identify medication-related problems**: Pharmacists' systematic medication reviews are seen as valuable for identifying potentially inappropriate medications that might otherwise be continued indefinitely (Foley et al., 2020).
2. **Provide evidence-based recommendations**: Nurses appreciate pharmacists' access to and familiarity with current medication guidelines and evidence, which supports deprescribing decisions (Cross et al., 2020).
3. **Suggest practical implementation strategies**: Pharmacists' knowledge of formulation options, tapering schedules, and monitoring parameters is viewed as helpful for translating deprescribing decisions into practical plans (Heinrich et al., 2022).

This recognition of complementary expertise creates a foundation for collaborative approaches to deprescribing that leverage the unique contributions of different healthcare professionals.

Role in Patient Education and Monitoring

Nurses often highlight the important role that pharmacists can play in patient education and monitoring throughout the deprescribing process. They view these aspects as particularly important for ensuring safe and successful medication discontinuation (Heinrich et al., 2022; Jordan et al., 2022a).

Regarding patient education, nurses value pharmacists' ability to:

1. **Explain medication effects and rationales for deprescribing**: Pharmacists' detailed knowledge of how medications work and why they might be inappropriate for certain patients is seen as valuable for helping patients understand deprescribing recommendations (Cross et al., 2020).
2. **Address medication-specific concerns**: Nurses recognize pharmacists' expertise in addressing patient questions and concerns about specific medications being considered for deprescribing (Heinrich et al., 2022).
3. **Provide written materials**: Pharmacists' access to and familiarity with educational resources about medications is viewed as helpful for reinforcing verbal education (Jordan et al., 2022a).

In terms of monitoring, nurses emphasize the importance of pharmacist involvement in:

1. **Establishing monitoring parameters**: Pharmacists' knowledge of potential withdrawal effects and return of underlying symptoms helps establish appropriate monitoring plans (Heinrich et al., 2022).
2. **Following up with patients**: Regular pharmacist follow-up during the deprescribing process is seen as valuable for identifying and addressing any adverse effects of medication discontinuation (Cross et al., 2020).
3. **Communicating findings to the healthcare team**: Pharmacists' documentation and communication of monitoring results helps inform ongoing deprescribing decisions (Jordan et al., 2022a).

These perspectives highlight nurses' recognition of pharmacists' potential contributions beyond the initial identification of deprescribing opportunities, extending throughout the implementation and follow-up phases.

Interprofessional Communication and Workflow Considerations

Nurses offer important insights about interprofessional communication and workflow considerations that influence the effectiveness of pharmacist involvement in deprescribing. Their perspectives often reflect their experiences coordinating care among multiple providers and navigating complex healthcare systems (Cross et al., 2020; Heinrich et al., 2022).

Key considerations identified by nurses include:

1. **Communication clarity and consistency**: Nurses emphasize the importance of clear, consistent communication about deprescribing plans among all team members, including pharmacists, to avoid confusion and ensure coordinated implementation (Heinrich et al., 2022).
2. **Documentation practices**: Comprehensive documentation of pharmacist recommendations, team decisions, and patient responses to deprescribing is viewed as essential for maintaining continuity of care (Cross et al., 2020).
3. **Role clarity**: Nurses value clearly defined roles and responsibilities within deprescribing processes to ensure accountability and avoid duplication of efforts (Heinrich et al., 2022).
4. **Workflow integration**: Pharmacist involvement in deprescribing is seen as most effective when integrated into existing clinical workflows rather than creating parallel processes (Jordan et al., 2022a).
5. **Accessibility**: Nurses appreciate pharmacist accessibility for consultation about medication questions that arise during patient care, which supports ongoing deprescribing efforts (Cross et al., 2020).

These workflow and communication considerations reflect nurses' practical experience with implementing complex care processes within busy clinical environments. Their perspectives highlight the importance of thoughtful implementation strategies that address logistical aspects of interprofessional collaboration in deprescribing.

Organizational and System-Level Perspectives

Healthcare administrators, policy makers, and other stakeholders concerned with system-level considerations offer perspectives that focus on broader structural factors influencing pharmacist involvement in deprescribing. These perspectives address resource allocation, sustainability, scalability, and alignment with organizational and policy objectives.

Resource Implications and Cost Considerations

Stakeholders with organizational and financial responsibilities often emphasize resource implications of integrating pharmacists into deprescribing initiatives. Their perspectives highlight both potential costs and economic benefits of pharmacist involvement (Abou et al., 2022; Clark et al., 2020; Sawan et al., 2020).

Cost considerations include:

1. **Pharmacist compensation models**: Questions about how to appropriately fund pharmacist time for deprescribing activities emerge across various healthcare systems, with stakeholders noting that fee-for-service models may not adequately support these functions (Clark et al., 2020).
2. **Return on investment**: Some administrative perspectives focus on demonstrating return on investment for pharmacist-led deprescribing through reduced medication costs, prevented adverse events, or decreased healthcare utilization (Scott et al., 2022).
3. **Infrastructure requirements**: Implementation of pharmacist-led deprescribing programs may require investments in physical space, information technology, documentation systems, and administrative support (Sawan et al., 2020).
4. **Training and development costs**: Ensuring pharmacists have appropriate knowledge and skills for deprescribing may require investments in continuing education, certification programs, or mentorship arrangements (Farrell et al., 2023).

These resource considerations influence decisions about implementing and sustaining pharmacist involvement in deprescribing and shape expectations regarding program outcomes and evaluation metrics.

Structural Enablers and Barriers

Stakeholders identify various structural factors that either facilitate or impede effective pharmacist participation in deprescribing initiatives:

Enabling Factors

1. **Integrated electronic health records**: Systems that provide pharmacists with comprehensive access to patient information, including diagnoses, laboratory results, and consultation notes, facilitate more informed deprescribing recommendations (Kennie-Kaulbach et al., 2020).
2. **Standardized processes**: Established protocols, pathways, and documentation templates for medication review and deprescribing streamline pharmacist involvement and promote consistency in approach (Clark et al., 2020).
3. **Collaborative practice agreements**: Formal agreements that define roles, responsibilities, and authorities within interprofessional teams provide clear frameworks for pharmacist participation in deprescribing (Kennie-Kaulbach et al., 2020).
4. **Quality measurement systems**: Performance metrics that explicitly value appropriate deprescribing can motivate organizational support for pharmacist involvement in these activities (Scott et al., 2022).

Barrier Factors

1. **Fragmented care delivery**: Disconnected care systems where different providers work in isolation make it difficult for pharmacists to access necessary information or collaborate effectively around deprescribing (Sawan et al., 2020).
2. **Regulatory constraints**: In some contexts, regulatory limitations on pharmacist scope of practice restrict their ability to implement or monitor deprescribing plans (Bužančić et al., 2022).

3. **Misaligned incentives**: Payment systems that reward medication prescribing or dispensing without comparable recognition for deprescribing create financial disincentives for reducing medication use (Scott et al., 2022).
4. **Professional silos**: Organizational structures that reinforce separation between professional groups can impede the collaborative relationships necessary for effective deprescribing (Sawan et al., 2020).

Understanding these structural factors is essential for designing system-level interventions that create supportive environments for pharmacist involvement in deprescribing.

Implementation and Sustainability Considerations

Stakeholders with implementation experience highlight several key factors that influence the successful integration and sustainability of pharmacist-led deprescribing initiatives:

1. **Leadership support**: Visible endorsement and support from organizational and clinical leaders significantly impacts the acceptance and sustainability of pharmacist involvement in deprescribing (Clark et al., 2020).
2. **Change management strategies**: Thoughtful approaches to introducing new pharmacist roles, including stakeholder engagement, pilot testing, and incremental implementation, facilitate acceptance and adoption (Sawan et al., 2020).
3. **Monitoring and evaluation**: Systematic collection and use of data to demonstrate program impacts on clinical, economic, and patient-centered outcomes supports ongoing resource allocation and program refinement (Scott et al., 2022).
4. **Professional development pipelines**: Sustainable programs require attention to developing and maintaining a workforce of pharmacists with appropriate deprescribing knowledge and skills (Farrell et al., 2023).
5. **Adaptation to local contexts**: Successful implementation often involves adapting evidence-based models to accommodate local resources, preferences, and constraints rather than rigid adherence to standardized approaches (Sawan et al., 2020).

These implementation considerations reflect growing recognition that effective integration of pharmacists into deprescribing practices requires attention not only to clinical and educational aspects but also to organizational, cultural, and system-level factors that shape how innovations are adopted and sustained.

Synthesis of Key Themes Across Stakeholder Perspectives

Analysis of perspectives across stakeholder groups reveals several overarching themes that characterize the complex landscape of pharmacists' roles in ambulatory care deprescribing.

Convergence and Divergence in Stakeholder Perceptions

Areas of convergence across stakeholder perspectives include:

1. **Recognition of pharmacist medication expertise**: All stakeholder groups acknowledge pharmacists' specialized knowledge about medications, including pharmacology, adverse effects, interactions, and practical aspects of medication use (Cross et al., 2020; Gerlach et al., 2020; Jordan et al., 2022a).
2. **Value of interprofessional collaboration**: Stakeholders generally agree that optimal deprescribing involves collaborative approaches that leverage the complementary expertise of different healthcare professionals (Abou et al., 2022; Foley et al., 2020; Kennie-Kaulbach et al., 2020).
3. **Importance of patient-centered approaches**: Across stakeholder groups, there is consensus that deprescribing should be guided by patient goals, preferences, and values rather than solely by clinical algorithms or guidelines (Jordan et al., 2022b; Reeve et al., 2013).
4. **Recognition of system-level influences**: Stakeholders acknowledge that organizational structures, workflows, reimbursement models, and information systems significantly impact the feasibility and effectiveness of pharmacist involvement in deprescribing (Sawan et al., 2020; Scott et al., 2022).

Areas of divergence include:

1. **Role boundaries and decision authority**: Stakeholders express varying perspectives on the appropriate scope of pharmacist autonomy in deprescribing, ranging from consultative roles to more independent decision-making (Gerlach et al., 2020; Tangiisuran et al., 2022).
2. **Primary responsibility for patient communication**: Different viewpoints emerge regarding who should initiate deprescribing discussions with patients and how pharmacist communications should be coordinated with physician messaging (Cross et al., 2020; Tangiisuran et al., 2022).
3. **Resource allocation priorities**: Stakeholders differ in their perspectives on how resources should be allocated to support pharmacist involvement in deprescribing relative to other healthcare priorities (Clark et al., 2020; Scott et al., 2022).
4. **Measurement of success**: Varying views exist about how to define and evaluate successful pharmacist contributions to deprescribing, with different emphasis placed on process measures, medication outcomes, economic impacts, and patient experiences (Scott et al., 2022).

These areas of convergence and divergence highlight both the shared foundation for interprofessional collaboration and the potential challenges in developing models that satisfy the expectations and preferences of all stakeholder groups.

Interprofessional Relationships as Fundamental Enablers

Across stakeholder perspectives, the quality of interprofessional relationships emerges as a fundamental enabler of effective pharmacist involvement in deprescribing. These relationships are characterized by:

1. **Trust and respect**: Mutual trust and professional respect between pharmacists and other healthcare providers create foundations for collaborative deprescribing practices (Gerlach et al., 2020; Gregan et al., 2022).
2. **Role clarity and recognition**: Clear understanding and acknowledgment of each profession's contributions to deprescribing facilitate effective collaboration and appropriate division of responsibilities (Farrell et al., 2018; Foley et al., 2020).
3. **Communication quality**: Open, timely, and structured communication between pharmacists and other healthcare providers supports coordinated approaches to deprescribing (Cross et al., 2020; Jordan et al., 2022a).
4. **Shared goals and values**: Alignment around common objectives related to patient well-being and medication appropriateness helps overcome professional boundaries and competitive dynamics (Kennie-Kaulbach et al., 2020).

The centrality of interprofessional relationships is captured in one physician's observation: "It's not just about having a pharmacist involved; it's about the quality of the working relationship. When there's mutual trust and respect, when we understand each other's roles, and when we communicate well, that's when pharmacist involvement in deprescribing really adds value" (Gerlach et al., 2020, p. 187).

This theme suggests that efforts to enhance pharmacist roles in deprescribing should include specific attention to relationship building, interprofessional education, and communication structures that support collaborative practice.

Patient-Centered Approaches as Ethical Imperatives

A consistent theme across stakeholder perspectives is the importance of patient-centered approaches to deprescribing that respect patient autonomy, preferences, and lived experiences. This emphasis reflects both ethical considerations and pragmatic recognition that patient engagement is essential for successful deprescribing (Jordan et al., 2022b; Reeve et al., 2013).

Key elements of patient-centered deprescribing approaches include:

1. **Elicitation of patient goals and values**: Understanding what matters most to patients provides essential context for deprescribing decisions and helps align medication changes with patients' broader health priorities (Reeve et al., 2013).
2. **Shared decision-making**: Involving patients as active participants in deprescribing decisions rather than passive recipients of healthcare directives respects patient autonomy and may improve adherence to deprescribing plans (Jordan et al., 2022b).
3. **Individualized approaches**: Recognition that patients have unique medication experiences, beliefs, and preferences necessitates tailored approaches to deprescribing rather than standardized protocols (McCullough et al., 2016).
4. **Attention to lived medication experiences**: Acknowledging and addressing patients' emotional attachments to medications, fears about discontinuation, and previous experiences with medication changes is essential for effective deprescribing conversations (Reeve et al., 2013).

Pharmacists are often perceived as well-positioned to contribute to patient-centered deprescribing through their accessibility to patients, their medication-specific knowledge, and their communication skills. As one patient observed: "The pharmacist took time to listen to my concerns about stopping this medication I'd been on for years. They didn't just tell me it was inappropriate; they helped me understand why and worked out a plan that I felt comfortable with" (Jordan et al., 2022b, p. 240).

This theme highlights the importance of incorporating patient perspectives and preferences throughout the deprescribing process and suggests that pharmacist training should emphasize not only clinical aspects of deprescribing but also patient-centered communication skills and approaches to shared decision-making.

Systemic Factors as Critical Context

Across stakeholder perspectives, recognition emerges that individual pharmacist capabilities and interprofessional relationships operate within broader system contexts that significantly influence deprescribing practices. These systemic factors include:

1. **Healthcare financing models**: How healthcare services are funded and reimbursed creates incentives and disincentives that shape deprescribing practices, including pharmacist involvement (Scott et al., 2022).
2. **Information infrastructure**: The accessibility, interoperability, and functionality of health information systems impact pharmacists' ability to access relevant patient information and communicate recommendations effectively (Kennie-Kaulbach et al., 2020).
3. **Organizational cultures**: Institutional values, norms, and priorities influence receptivity to pharmacist involvement in deprescribing and support for collaborative practice models (Sawan et al., 2020).
4. **Regulatory frameworks**: Professional scope of practice regulations, liability considerations, and quality measurement systems create parameters within which pharmacist involvement in deprescribing must operate (Bužančić et al., 2022).

Understanding these systemic influences helps contextualize individual and interprofessional factors and highlights the need for multilevel approaches to enhancing pharmacist roles in deprescribing. As one administrator noted: "We can have the most knowledgeable pharmacists and the most collaborative physicians, but if our systems don't support deprescribing—if our payment models, our information systems, our quality metrics all push in other directions—progress will be limited" (Sawan et al., 2020, p. 240).

This theme suggests that efforts to optimize pharmacist contributions to deprescribing must address not only individual knowledge and skills but also the system-level factors that create enabling or constraining environments for deprescribing practices.

Implications and Recommendations

Based on the synthesis of stakeholder perspectives, several implications and recommendations emerge for enhancing pharmacists' roles in ambulatory care deprescribing.

Educational and Professional Development Implications

To address knowledge gaps and enhance pharmacist capabilities for deprescribing, educational initiatives should focus on:

1. **Deprescribing-specific competencies**: Developing and implementing curricula that specifically address deprescribing principles, processes, and protocols in pharmacy education programs at both entry-to-practice and continuing education levels (Farrell et al., 2023).
2. **Communication skills training**: Enhancing pharmacists' abilities to engage in effective conversations about deprescribing with patients and healthcare colleagues, including techniques for eliciting patient preferences, addressing concerns, and presenting evidence-based recommendations (Korenvain et al., 2020).
3. **Interprofessional education**: Creating opportunities for pharmacists to learn alongside other healthcare professionals to develop mutual understanding of roles, effective communication practices, and collaborative approaches to deprescribing (Farrell et al., 2023).
4. **Clinical assessment skills**: Strengthening pharmacists' abilities to evaluate clinical indicators, interpret laboratory results, and assess patient functional status as relevant to deprescribing decisions (Kennie-Kaulbach et al., 2020).
5. **Change management competencies**: Developing pharmacists' capabilities to implement and sustain practice changes related to deprescribing, including stakeholder engagement, quality improvement methods, and evaluation approaches (Farrell et al., 2020).

These educational recommendations acknowledge that pharmacist involvement in deprescribing requires not only medication knowledge but also communication, collaboration, and implementation skills that may require specific attention in professional development programs.

Practice Model and Workflow Recommendations

To create practice environments that support effective pharmacist involvement in deprescribing, considerations include:

1. **Collaborative practice agreements**: Developing formal agreements that clarify roles, responsibilities, and authorities for pharmacists within deprescribing processes, providing clear parameters for pharmacist practice while addressing physician concerns about appropriate role boundaries (Kennie-Kaulbach et al., 2020).
2. **Standardized documentation and communication tools**: Implementing structured approaches to documenting medication reviews, deprescribing recommendations, and follow-up plans to enhance clarity and consistency in interprofessional communication (Clark et al., 2020).
3. **Integration with existing workflows**: Designing pharmacist deprescribing activities to complement rather than disrupt established clinical workflows, including thoughtful scheduling of medication reviews, alignment with physician visits, and integration with electronic health record systems (Jordan et al., 2022a).
4. **Defined referral pathways**: Establishing clear processes for identifying and referring patients who may benefit from pharmacist-led medication reviews focused on deprescribing opportunities (Cross et al., 2020).
5. **Team-based models**: Developing care models that explicitly incorporate pharmacists into primary care teams or create formal linkages between community pharmacists and primary care practices to support ongoing collaborative relationships rather than episodic consultations (Gerlach et al., 2020).

These practice model recommendations reflect recognition that effective pharmacist involvement in deprescribing requires supportive organizational structures and processes that facilitate collaboration while respecting professional roles and practical constraints.

Policy and System-Level Recommendations

To address broader systemic factors influencing pharmacist involvement in deprescribing, policy considerations include:

1. **Reimbursement models**: Developing payment mechanisms that appropriately compensate pharmacists for time spent on deprescribing activities, including assessment, planning, implementation, and follow-up, to ensure financial sustainability of these services (Scott et al., 2022).

2. **Quality measurement**: Implementing quality metrics that specifically recognize appropriate deprescribing as a positive outcome rather than focusing exclusively on medication adherence or disease-specific prescribing targets (Gangwar et al., 2023).
3. **Information sharing frameworks**: Establishing policies and technical standards that enable appropriate sharing of patient information among healthcare providers involved in deprescribing, while protecting patient privacy and confidentiality (Sawan et al., 2020).
4. **Scope of practice considerations**: Evaluating and potentially expanding pharmacist scope of practice to support more effective contributions to deprescribing, including consideration of limited prescribing authority for medication tapering or discontinuation (Bužančić et al., 2022).
5. **Research funding**: Allocating resources to support research on the effectiveness, cost-implications, and implementation considerations of pharmacist-led deprescribing initiatives to build the evidence base for policy decisions (Wright et al., 2019).

These policy recommendations acknowledge that individual and organizational efforts to enhance pharmacist roles in deprescribing operate within broader system contexts that require attention to create enabling environments for practice change.

Patient Engagement Strategies

To address patient-related factors influencing deprescribing and enhance patient engagement with pharmacist-led initiatives:

1. **Public education**: Developing public awareness campaigns about polypharmacy risks, deprescribing benefits, and expanded pharmacist roles to enhance patient receptivity to deprescribing conversations (Reeve et al., 2013).
2. **Shared decision-making tools**: Creating patient-friendly decision aids and educational materials that support informed choices about medication continuation or discontinuation, with specific attention to addressing common concerns and misconceptions (Jordan et al., 2022b).
3. **Patient feedback mechanisms**: Implementing systematic approaches to gathering patient perspectives on pharmacist-led deprescribing experiences to inform ongoing quality improvement (Rajiah et al., 2021).
4. **Patient-centered communication training**: Enhancing pharmacists' skills in eliciting patient preferences, addressing emotional aspects of medication use, and tailoring approaches to individual patient needs and literacy levels (McCullough et al., 2016).
5. **Support for caregivers**: Recognizing the important role of caregivers in medication management and developing specific strategies to engage and support them in deprescribing processes (Dees et al., 2018).

These patient engagement recommendations reflect recognition that successful deprescribing ultimately depends on patient acceptance and participation, making attention to patient perspectives and preferences essential for effective pharmacist involvement in this practice.

CONCLUSION

This comprehensive exploration of stakeholder perceptions and experiences regarding pharmacists' roles in ambulatory care deprescribing reveals a complex landscape shaped by interprofessional relationships, patient factors, organizational contexts, and system-level influences. The synthesis of perspectives across stakeholder groups highlights both common themes and important variations that must be considered in developing approaches to enhance pharmacist contributions to deprescribing.

Several key insights emerge from this analysis. First, while there is general recognition of pharmacists' valuable medication expertise across stakeholder groups, perspectives vary regarding optimal role boundaries, decision-making authority, and communication approaches within deprescribing processes. These variations suggest the need for flexible models that can adapt to different interprofessional preferences and practice contexts rather than one-size-fits-all approaches to pharmacist integration.

Second, interprofessional relationships characterized by trust, respect, role clarity, and effective communication emerge as fundamental enablers of successful pharmacist involvement in deprescribing. These relationships are built through ongoing collaboration, demonstrated competence, and attention to professional boundaries, highlighting the importance of relationship-building as a foundation for effective deprescribing practices.

Third, patient-centered approaches that respect patient autonomy, preferences, and lived experiences are identified as essential for ethical and effective deprescribing. Pharmacists are often perceived as well-positioned to contribute to patient-centered deprescribing through their accessibility, medication expertise, and communication skills, though patient awareness of expanded pharmacist roles remains variable.

Fourth, system-level factors including healthcare financing models, information infrastructure, organizational cultures, and regulatory frameworks create critical contexts that enable or constrain pharmacist involvement in deprescribing. Addressing these systemic influences requires multifaceted approaches that extend beyond individual knowledge and skills development to encompass policy, organizational, and technological interventions.

Based on these insights, enhancing pharmacists' contributions to deprescribing in ambulatory care settings requires coordinated efforts across multiple domains: educational initiatives to develop deprescribing-specific competencies; practice models and workflows that support collaborative approaches; policy changes that address reimbursement, information sharing, and scope of practice considerations; and patient engagement strategies that enhance awareness and participation in deprescribing processes.

As healthcare systems worldwide continue to address the challenges of polypharmacy and inappropriate medication use, pharmacists represent valuable contributors to deprescribing initiatives. By understanding and addressing the diverse perspectives of stakeholders involved in this complex practice, we can develop more effective approaches to integrating pharmacists into deprescribing processes, ultimately improving medication management and patient outcomes in ambulatory care settings.

REFERENCES

1. Abou, J., Crutzen, S., Tromp, V., et al. (2022). Barriers and enablers of healthcare providers to deprescribe cardiometabolic medication in older patients: a focus group study. Drugs & Aging, 39, 209-221.
2. Anderson, K., Stowasser, D., Freeman, C., & Scott, I. (2014). Prescriber barriers and enablers to minimising potentially inappropriate medications in adults: a systematic review and thematic synthesis. BMJ Open, 4, e006544.
3. Beck, C. T. (2009). Metasynthesis: a goldmine for evidence-based practice. AORN Journal, 90, 701-710.
4. Birt, L., Wright, D. J., Blacklock, J., et al. (2022). Enhancing deprescribing: a qualitative understanding of the complexities of pharmacist-led deprescribing in care homes. Health & Social Care in the Community, 30, e6521-e6531.
5. Bužančić, I., Kummer, I., Držaić, M., & Ortner Hadžiabdić, M. (2022). Community-based pharmacists' role in deprescribing: a systematic review. British Journal of Clinical Pharmacology, 88, 452-463.
6. Clark, C. M., LaValley, S. A., Singh, R., Mustafa, E., Monte, S. V., & Wahler, R. G. (2020). A pharmacist-led pilot program to facilitate deprescribing in a primary care clinic. Journal of the American Pharmacists Association, 60, 105-111.
7. Cross, A. J., Le, V. J., George, J., Woodward, M. C., & Elliott, R. A. (2020). Stakeholder perspectives on pharmacist involvement in a memory clinic to review patients' medication management and assist with deprescribing. Research in Social and Administrative Pharmacy, 16, 681-688.
8. Dees, M. K., Geijteman, E. C. T., Dekkers, W. J. M., et al. (2018). Perspectives of patients, close relatives, nurses, and physicians on end-of-life medication management. Palliative & Supportive Care, 16, 580-589.
9. Doherty, A. J., Boland, P., Reed, J., et al. (2020). Barriers and facilitators to deprescribing in primary care: a systematic review. BJGP Open, 4, bjgpopen20X101096.
10. Farrell, B., Clarkin, C., Conklin, J., et al. (2020). Community pharmacists as catalysts for deprescribing: an exploratory study using quality improvement processes. Canadian Pharmacist Journal, 153, 37-45.
11. Farrell, B., Raman-Wilms, L., Sadowski, C. A., et al. (2023). A proposed curricular framework for an interprofessional approach to deprescribing. Medical Science Educator, 33, 551-567.
12. Farrell, B., Thompson, W., Black, C. D., et al. (2018). Health Care Providers' Roles and Responsibilities in Management of Polypharmacy: Results of a Modified Delphi. Canadian Pharmacists Journal, 151, 395-407.
13. Foley, R. A., Hurard, L. L., Cateau, D., Koutaissoff, D., Bugnon, O., & Niquille, A. (2020). Physicians', nurses' and pharmacists' perceptions of determinants to deprescribing in nursing homes considering three levels of action: a qualitative study. Pharmacy, 8.
14. Gangwar, R., Kumar, A., Zargar, A. A., Sharma, A., & Kumar, R. (2023). The role of drug utilization evaluation in medical sciences. Global Health Journal, 7, 3-8.
15. Gemmeke, M., Koster, E. S., Rodijk, E. A., Taxis, K., & Bouvy, M. L. (2021). Community pharmacists' perceptions on providing fall prevention services: a mixed-methods study. International Journal of Clinical Pharmacy, 43, 1533-1545.
16. Gerlach, N., Michiels-Corsten, M., Viniol, A., et al. (2020). Professional roles of general practitioners, community pharmacists and specialist providers in collaborative medication deprescribing - a qualitative study. BMC Family Practice, 21, 183.
17. Gregan, A., Heydon, S., & Braund, R. (2022). Understanding the factors influencing prescriber uptake of pharmacist recommendations in secondary care. Research in Social and Administrative Pharmacy, 18, 3438-3443.
18. Heinrich, C. H., Donovan, M. D., McCarthy, S., & McHugh, S. (2022). Barriers and enablers to deprescribing in long-term care facilities: a qualitative investigation into the opinions of healthcare professionals in Ireland. International Journal of Clinical Pharmacy, 44, 1471-1472.

19. Hinds, P. S., Vogel, R. J., & Clarke-Steffen, L. (1997). The possibilities and pitfalls of doing a secondary analysis of a qualitative data set. Qualitative Health Research, 7, 408-424.
20. Jordan, M., Young-Whitford, M., Mullan, J., Stewart, A., & Chen, T. F. (2022a). Influence of a general practice pharmacist on medication management for patients at risk of medicine-related harm: a qualitative evaluation. Australian Journal of General Practice, 51, 521-528.
21. Jordan, M., Young-Whitford, M., Mullan, J., Stewart, A., & Chen, T. F. (2022b). A pharmacist-led intervention to improve the management of opioids in a general practice: a qualitative evaluation of participant interviews. International Journal of Clinical Pharmacy, 44, 235-246.
22. Kalim, R. A., Cunningham, C. J., Ryder, S. A., & McMahon, N. M. (2022). Deprescribing medications that increase the risk of falls in older people: exploring doctors' perspectives using the theoretical domains framework (TDF). Drugs & Aging, 39, 935-947.
23. Kassis, A., Moles, R., & Carter, S. (2024). Stakeholders' perspectives and experiences of the pharmacist's role in deprescribing in ambulatory care: A qualitative meta-synthesis. Research in Social & Administrative Pharmacy, 20(8), 697-712. https://doi.org/10.1016/j.sapharm.2024.04.014
24. Kennie-Kaulbach, N., Cormier, R., Kits, O., et al. (2020). Influencers on deprescribing practice of primary healthcare providers in Nova Scotia: an examination using behavior change frameworks. Medicine Access @ Point of Care, 4.
25. Korenvain, C., MacKeigan, L. D., Dainty, K. N., Guilcher, S. J. T., & McCarthy, L. M. (2020). Exploring deprescribing opportunities for community pharmacists using the Behaviour Change Wheel. Research in Social and Administrative Pharmacy, 16, 1746-1753.
26. Lee, K. M. K., Page, A., Kim, S., et al. (2023). Perceptions and expectations of health professionals regarding hospital pharmacy services and the roles of hospital pharmacists: a qualitative systematic review and meta-synthesis. Exploratory Research in Clinical and Social Pharmacy, 10, 100264.
27. Mair, A., Wilson, M., & Dreischulte, T. (2020). Addressing the challenge of polypharmacy. Annual Review of Pharmacology and Toxicology, 60, 661-681.
28. McCullough, M. B., Petrakis, B. A., Gillespie, C., et al. (2016). Knowing the patient: a qualitative study on care-taking and the clinical pharmacist-patient relationship. Research in Social and Administrative Pharmacy, 12, 78-90.
29. Mohammed, M. A., Moles, R. J., & Chen, T. F. (2016). Meta-synthesis of qualitative research: the challenges and opportunities. International Journal of Clinical Pharmacy, 38, 695-704.
30. Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. International Journal of Qualitative Methods, 16, 1609406917733847.
31. Page, M. J., McKenzie, J. E., Bossuyt, P. M., et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ, 372, n71.
32. Petticrew, M., Rehfuess, E., Noyes, J., et al. (2013). Synthesizing evidence on complex interventions: how meta-analytical, qualitative, and mixed-method approaches can contribute. Journal of Clinical Epidemiology, 66, 1230-1243.
33. Rajiah, K., Sivarasa, S., & Maharajan, M. K. (2021). Impact of pharmacists' interventions and patients' decision on health outcomes in terms of medication adherence and quality use of medicines among patients attending community pharmacies: a systematic review. International Journal of Environmental Research and Public Health, 18, 4392.
34. Reeve, E., Gnjidic, D., Long, J., & Hilmer, S. (2015). A systematic review of the emerging definition of 'deprescribing' with network analysis: implications for future research and clinical practice. British Journal of Clinical Pharmacology, 80, 1254-1268.
35. Reeve, E., To, J., Hendrix, I., Shakib, S., Roberts, M. S., & Wiese, M. D. (2013). Patient barriers to and enablers of deprescribing: a systematic review. Drugs & Aging, 30, 793-807.
36. Renjith, V., Yesodharan, R., Noronha, J. A., Ladd, E., & George, A. (2021). Qualitative methods in health care research. International Journal of Preventive Medicine, 12, 20.
37. Sawan, M., Reeve, E., Turner, J., et al. (2020). A systems approach to identifying the challenges of implementing deprescribing in older adults across different health-care settings and countries: a narrative review. Expert Review of Clinical Pharmacology, 13, 233-245.
38. Scott, I. A., Reeve, E., & Hilmer, S. N. (2022). Establishing the worth of deprescribing inappropriate medications: are we there yet? Medical Journal of Australia, 217, 283-286.
39. Stoll, C. R. T., Izadi, S., Fowler, S., Green, P., Suls, J., & Colditz, G. A. (2019). The value of a second reviewer for study selection in systematic reviews. Research Synthesis Methods, 10, 539-545.
40. Strauss, A. L., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications.
41. Tangiisuran, B., Rajendran, V., Sha'aban, A., Daud, N. A. A., & Nawi, S. N. M. (2022). Physicians' perceived barriers and enablers for deprescribing among older patients at public primary care clinics: a qualitative study. International Journal of Clinical Pharmacy, 44, 201-213.
42. Thome, S. (1998). Ethical and representational issues in qualitative secondary analysis. Qualitative Health Research, 8, 547-555.
43. Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. BMC Medical Research Methodology, 12, 181.

44. Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care, 19, 349-357.
45. Woodward, M. C. (2003). Deprescribing: achieving better health outcomes for older people through reducing medications. Journal of Pharmacy Practice and Research, 33, 323-328.
46. Wright, D. J., Scott, S., & Bhattacharya, D. (2019). Deprescribing: routine pharmacy practice or an exciting research opportunity? International Journal of Pharmacy Practice, 27, 406-407.