

Normalizing safe deprescribing: a qualitative study of primary care professionals' views using normalization process theory

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Abstract

Objectives: The aim of the study was to enhance understanding of how proactive deprescribing can be implemented in primary care. This study explored the views of healthcare professionals (HCPs) on the normalization of safe and routine deprescribing in English primary care.

Methods: An interview guide was developed from deprescribing literature and underpinned by Normalization Process Theory. Interviews and focus groups were conducted with general practitioners, primary care pharmacists, community pharmacists, and clinical commissioning group staff involved in medicines optimization. Focus groups were conducted online, while interviews were conducted via telephone or online using Microsoft Teams®. Focus groups and interviews were transcribed verbatim, and data were analysed using Framework analysis to generate themes.

Key findings: Thirty participants (57% female), consisting of general practitioners ($n = 9$), community pharmacists ($n = 6$), primary care pharmacists ($n = 14$), and a clinical commissioning group staff member ($n = 1$), were recruited to three online focus groups, eight online interviews, and one telephone interview. Three themes were developed: (i) 'Current deprescribing climate' highlighted factors promoting pressure to prescribe rather than deprescribe; (ii) 'Routine implementation, roles and responsibilities' emphasized the role of patients and pharmacists in routine deprescribing; (iii) 'Keeping deprescribing safe' identified strategies for maintaining safety during deprescribing. Deprescribing normalization can be strengthened by leveraging cognitive participation (engagement work) and collective action (the work required to implement the intervention).

Conclusions: Normalizing deprescribing is challenging due to entrenched prescribing habits, safety concerns, and legal uncertainties. HCPs' personal experiences shaped confidence in deprescribing. Participants emphasized the importance of structured guidelines and teamwork in embedding deprescribing into practice. Expanding roles, establishing clear protocols, and fostering collaboration were viewed as essential for safe implementation.

Keywords Deprescribing, normalization process theory, primary care, polypharmacy, medicines optimization

Introduction

Problematic polypharmacy arises when multiple medicines are prescribed inappropriately or fail to achieve their intended effects [1]. It is linked to the use of potentially inappropriate medications (PIMs), an increase in adverse drug reactions (ADRs) and adverse drug events (ADEs), as well as higher healthcare costs [1]. Problematic polypharmacy is prevalent among older adults, who face a higher risk of PIM use and are more susceptible to ADRs and ADEs due to age-related physiological changes [2]. The risk increases for those taking five or more medicines [2]. Consequently, there

has been a global push to address inappropriate polypharmacy through approaches like deprescribing [3, 4].

Deprescribing involves the careful identification and cessation of medicines when their risks outweigh the benefits, considering the patient's goals, functional level, life expectancy, and preferences [5]. Evidence shows that medicines such as statins and opioids can be safely discontinued in primary care settings [6]. Although deprescribing is generally considered safe, it carries potential risks, including the possibility of symptom recurrence and adverse drug withdrawal events (ADWEs) [6]. Recent attention has shifted towards proactive deprescribing, where medicines are

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Table 1 The four constructs of NPT [14].

Construct of NPT	Definition
Coherence	The way in which individuals and organizations make sense of a new practice, forming an understanding of it that will either support or hinder its integration into everyday use.
Cognitive participation	The efforts made by individuals and organizations to bring people on board and encourage active engagement with a new practice.
Collective action	The practical work carried out by individuals and organizations to put a new practice into operation.
Reflexive monitoring	The ongoing assessment of a new practice after implementation, through which users develop a deeper understanding of its benefits and drawbacks.

proactively discontinued to prevent future ADRs and ADEs through medication reviews [7, 8].

Despite this focus, there are limited data on the routine and proactive deprescribing practices in primary care. While existing studies have explored factors that either facilitate or hinder deprescribing, there has been a call to focus on deprescribing implementation research [9]. This is imperative in ensuring the long-term success and sustainability of deprescribing initiatives in the English primary care system [10]. Previous literature has highlighted barriers to healthcare professionals (HCPs) when actioning the deprescribing process [11]. However, little is known from HCPs about implementation and how widescale implementation can be facilitated and sustained [7].

Normalization Process Theory (NPT) offers a valuable framework for examining factors that affect the success or failure of interventions such as deprescribing [12]. NPT includes four key components: coherence (understanding of the intervention), cognitive participation (engagement of stakeholders), collective action (efforts required to implement it), and reflexive monitoring (ongoing evaluation) [13]. The complete definition of the NPT constructs is provided in Table 1. These components provide insight into how interventions become part of routine practice and have been applied in primary care research to examine implementation [14]. It is essential to incorporate the perspectives of all relevant stakeholders in the implementation of deprescribing.

This study explored the views of primary care HCPs, routinely involved in medicines management, on how proactive deprescribing can be safely and routinely implemented in primary care. Using NPT, the research aimed to identify the factors that influence deprescribing practice.

The aim of the study was to enhance understanding of how proactive deprescribing can be implemented in primary care. The objective was to explore the views of HCPs on the normalization of safe and routine deprescribing in English primary care.

Materials and methods

Study design

This qualitative study used focus groups and semi-structured interviews with pharmacists, general practitioners (GPs) and Clinical Commissioning Group (CCG) staff. National Health Service (NHS) ethical approval was received from the East of Scotland Research Ethics Service (ref no. 21/ES/0020). The study manuscript was written in accordance with the Consolidated Criteria for Reporting Qualitative Research (Supplementary Material S2).

Table 2 HCP inclusion and exclusion criteria.

Inclusion criteria

GPs including prescribing leads
PCN/practice pharmacists with patient-facing roles including reviewing patients' medicines
Community pharmacists
CCG staff involved in the commissioning or providing prescribing or medication review services

Exclusion criteria

HCPs working in secondary or tertiary care
Healthcare staff involved solely in non-patient-facing roles

Recruitment and participants

Purposive sampling was used to identify HCPs who met the inclusion criteria in Table 2. The target sample size was 20 to 30 participants, in line with previous qualitative deprescribing literature, in which similar cohort sizes yielded rich data [15]. Given the role of GPs in primary care medicines use and the involvement of pharmacists in deprescribing literature, both professions were included [7, 16]. The sample included pharmacists directly employed by general practices (practice pharmacists), pharmacists operating within a Primary Care Network (PCN) and community pharmacists. PCNs are collaborations between general practices and other healthcare providers, such as pharmacies and social care services, to improve local healthcare services [17]. CCG staff responsible for commissioning medicines services were included to explore perspectives on deprescribing implementation at a senior management and policy level. CCGs were NHS England organizations, funded and overseen by the national government, that planned and purchased healthcare services for a defined geographic area, functioning similarly to regional health authorities or managed care organizations found in other countries. CCGs were responsible for the strategic planning and commissioning of healthcare services to meet the needs of their local populations [18]. In 2022, CCGs were reformed into Integrated Care Boards, which serve a similar purpose to their predecessors.

Participant recruitment was open across England. Recruitment posters and a participant information sheet were developed and disseminated to research-active GPs and HCPs through the NIHR Clinical Research Network, social media, and professional networks. Prospective participants were invited to contact the lead researcher via email to express their interest in participation. Recruitment continued until the research team judged that a sufficient sample size had been achieved, based on reaching the planned lower sample target ($n=20$) and whether new themes emerged from subsequent interviews.

Data collection

Depending on participant preference, DO conducted focus groups via MS Teams® and interviews via MS Teams® or telephone. Focus groups and online interviews were recorded using MS Teams® meeting function, and telephone interviews with a digital recorder. Additionally, DO took field notes to document observations and personal reflections.

The interview guide (Supplementary Material S1) was informed by previous research and refined through team discussions and Patient and Public Involvement and Engagement representatives to ensure a patient-centred approach [7, 19]. The guide explored deprescribing barriers and facilitators, participants' experiences with deprescribing, patient safety considerations, and pharmacists' roles in deprescribing. Questions were derived from the constructs and sub-constructs of NPT. The collective action construct included contextual integration and skill set workability, assessing organizational support, education, and training. The coherence construct incorporated internalization, evaluating the perceived value of deprescribing. Cognitive participation was represented by legitimation and enrolment, examining involvement and stakeholder engagement. These questions captured HCPs' perspectives on deprescribing importance, strategies to improve engagement, and the organizational and educational support needed. The goal was to explore views on how safe deprescribing could be normalized within primary care.

Data analysis

Data were analysed using framework analysis facilitated by NVIVO®10 [20]. Framework analysis was selected for its capacity to systematically and rigorously accommodate the multifaceted nature of the research topic and the potential breadth of divergent perspectives [20]. DO reviewed the data, initial interview recordings and read transcripts. Reflective field notes, which captured observations made during data collection, were also reviewed. An open coding process was then initiated. These codes were refined and grouped according to their characteristics and similarities. This process culminated in developing an analytical framework consisting of distinct code categories. The finalized framework (example located in Supplementary Material S3) was applied to the remaining transcripts, with the researcher reviewing the codes and categories in relation to the research aim and objectives. The coding process was led by DO, with DA, BF, and STRZ providing feedback on the coding framework. NPT was employed to guide the interpretation during the framework analysis and to situate the findings in context. This was achieved by interrogating clusters of codes and themes across the domains of NPT and systematically examining the relationship between each code or category and the relevant constructs of NPT. This process was conducted with explicit reference to the research question, ensuring that interpretations remained focused on the potential for deprescribing normalization.

Results

Participant characteristics

Thirty HCPs across England were recruited and interviewed, with three online focus groups (focus group 1: $n=7$, focus group

2: $n=9$, focus group 3: $n=5$), eight online interviews and one telephone interview conducted. Participants consisted of GPs ($n=9$), community pharmacists ($n=6$), primary care pharmacists ($n=14$) and a clinical commissioning group staff member ($n=1$). No repeat interviews were conducted, and no participants dropped out. The most common age range of participants was 31–40 ($n=15$), whilst 57% were female. Participant demographics are presented in Table 3. A diverse range of eight ethnicities was recruited, with white British being the most common followed by British Pakistani. Focus group duration ranged from 82 to 84 min (mean 83 min). Interview duration ranged from 33 to 63 min (mean 52.1 min). Findings were disseminated to participants to provide the opportunity for feedback via an email newsletter. No additional feedback was provided, and participants who had responded confirmed agreement with the findings presented.

Findings

Three themes were developed with associated subthemes: 'Current deprescribing climate', 'Routine implementation, roles and responsibilities', and 'Keeping deprescribing safe' (Figure 1).

Theme 1: Current deprescribing climate

This theme describes HCP views on the current state of deprescribing within primary care.

Subtheme 1: Easier to prescribe than deprescribe

HCPs identified barriers to deprescribing implementation, including time constraints, competing priorities, and limited staffing and funding. These challenges made it difficult to integrate deprescribing into their workload, particularly for community pharmacists, whose role in deprescribing remains undefined.

'Community pharmacists right now, they're majorly underfunded, under-staffed, and there are pressures to do everything else in their job' [HCP 18, community pharmacist]

Deprescribing was considered a judgment-based process requiring individualized decisions with limited information. HCPs relied on professional expertise but lacked guidance, causing uncertainty. Deprescribing lacked standardized support making decision-making more challenging.

'There's specific guidance about starting [medicines]. But stopping, it's very much a play-it-by-ear... It's not as structured' [HCP 6, practice pharmacist]

HCPs found deprescribing challenging due to differing opinions, often facing resistance or overrides from senior colleagues. This opposition led to a perception that deprescribing was not worthwhile.

'Some GPs are resistant to any deprescribing' [HCP 22, PCN pharmacist]

HCPs noted that language posed a barrier to deprescribing, as patients were often told their medicine was 'for life' [HCP 23]. This created attachment, making it challenging to accept deprescribing when appropriate.

'Things like statins, they said, you're on this for life. To take that away from a patient, it's like something's gone wrong in their eyes' [HCP 23, CCG]

Table 3 Participant demographics.

HCP	Age Range	Gender	Ethnicity	Job title	Interview (I) or FG
1	31–40	Male	British Iranian	Practice pharmacist	FG
2	31–40	Male	British Iranian	Practice pharmacist	FG
3	31–40	Male	Indian	Practice pharmacist	FG
4	31–40	Male	White British	Practice pharmacist	FG
5	31–40	Male	Pakistani	Practice pharmacist	FG
6	41–50	Female	White British	Practice pharmacist	FG
7	21–30	Male	British Pakistani	Practice pharmacist	FG
8	41–50	Male	White British	GP	FG
9	31–40	Female	White British	GP	FG
10	51–60	Male	White British	GP	FG
11	51–60	Female	White British	GP	FG
12	31–40	Female	White British	GP	FG
13	31–40	Female	Black African	GP	FG
14	41–50	Female	White British	GP	FG
15	41–50	Female	White British	GP	FG
16	31–40	Female	White British	GP	FG
17	31–40	Female	Black British	Community pharmacist	I
18	21–30	Female	White British	Community Pharmacist	I
19	21–30	Female	White British	Community pharmacist	I
20	31–40	Male	White British	Community pharmacist	I
21	21–30	Male	White British	PCN pharmacist	I
22	31–40	Female	White British	PCN pharmacist	I
23	31–40	Male	British Pakistani	Senior CCG role	I
24	41–50	Female	British Asian	Community pharmacist	I
25	21–30	Male	White British	Community pharmacist	I
26	21–30	Female	British Asian	PCN pharmacist	FG
27	31–40	Female	British Pakistani	PCN pharmacist	FG
28	31–40	Female	Arab	PCN pharmacist	FG
29	21–30	Male	Indian	PCN pharmacist	FG
30	31–40	Female	British Pakistani	PCN pharmacist	FG

Clinical inertia, where there is less resistance to continue medicines than discontinue them, was a key barrier. HCPs described maintaining treatment, even when no longer beneficial, to avoid potentially disrupting patients' health stability. Some HCPs avoided discussions on stopping medicines, especially when unsure about the medicine's benefit timeline, fearing blame if adverse events occurred after deprescribing.

'I think you're getting frail, and I don't know if you're going to live long enough for this medication to work, it's easier not to have the conversation' [HCP 13, GP]

Subtheme 2: Deprescribing guidance and collaborations

HCPs stressed the role of access to advice, guidance, prescribing tools, and support in routine deprescribing. They highlighted the need for clear, specific national guidance to encourage deprescribing, aid decision-making, and provide structure. HCPs reported that clear guidance had a positive influence on their deprescribing efforts.

'If we want to encourage deprescribing on a national scale, there should be some clear-cut guidance' [HCP 5, PCN pharmacist]

HCPs highlighted the significance of a supportive multi-disciplinary team (MDT) in enabling deprescribing in primary care. An MDT that offered guidance helped HCPs make informed decisions, reinforced their choices and provided support. It also shared the additional workload of deprescribing and created an environment of reflection and learning.

'An MDT to be able to send tasks in or send questions in directly... to know then that we've made this decision together as an MDT' [HCP 3, practice pharmacist]

Involving patients, families, and carers in deprescribing decisions was seen as a significant enabler within discussions, allowing HCPs to understand patients' views on medicines, especially if they believed a medicine still provided benefit.

'Talking to the carers or the family was so helpful... her support that she thought it was the right thing increased my confidence' [HCP 22, PCN pharmacist]

Subtheme 3: Risk, confidence, and fear of litigation

HCPs' confidence and experience with deprescribing influenced their routine practice. Those with less experience or

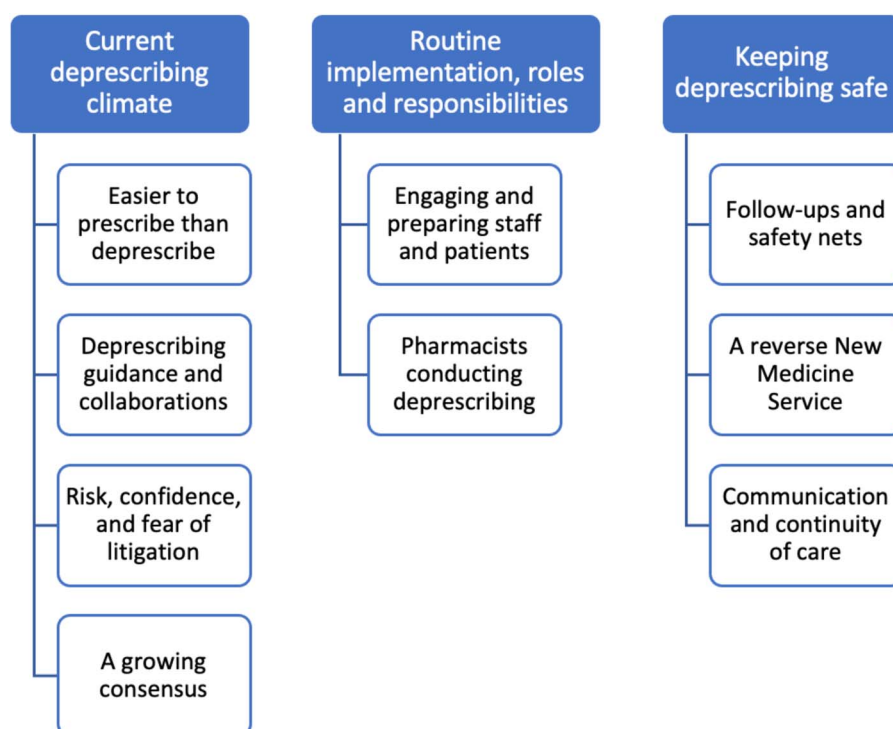


Figure 1 Thematic map derived from framework analysis of HCP interviews.

low confidence were reluctant to deprescribe, fearing compromising patient safety, especially with preventative medicines. This was heightened if the medication had been prescribed in secondary care.

‘Many medications we’re considering deprescribing have been started in secondary care. A lot of GPs are fearful about reducing cardiac medications for secondary prevention for heart failure’ [HCP 15, GP]

As HCPs gained experience with deprescribing, their confidence grew. They observed positive patient outcomes and no adverse reactions, reinforcing their confidence to deprescribe routinely. This increased confidence was strengthened through experience monitoring patients following deprescribing, enabling development of effective patient monitoring strategies. HCPs could not recall any instances where patient safety was compromised through deprescribing.

‘As I have done some deprescribing, I feel like that’s built my confidence . . . This helped me to deprescribe more routinely’ [HCP 28, PCN pharmacist]

Uncertainty and perceived risks hindered HCPs’ confidence in deprescribing. They struggled to assess and communicate the risks of continuing medicines, particularly preventative medicines, and were concerned about the potential consequences. This uncertainty made it challenging to justify the risks of deprescribing versus continuing PIMs.

‘What I dislike deprescribing is preventative medicines because you don’t know if when you stopped it, that was the cause of something or if it would’ve happened anyway’ [HCP 26, PCN pharmacist]

HCPs expressed concerns about potential litigation concerning deprescribing medicines, particularly for preventing cardiovascular events. They feared legal action if adverse reactions occurred or if patients became upset. This fear, compounded by a lack of clear evidence to support decisions, intensified their concern about legal implications.

‘One of the biggest issues is litigation. I don’t want to stop something, the patient gets angry, or something happens, and I end up with a lawsuit’ [HCP 5, practice pharmacist]

Subtheme 4: A growing consensus

HCPs noted a growing consensus on the significance of deprescribing in primary care. The national focus on polypharmacy’s negative impact and the integration of deprescribing in Structured Medication Reviews (SMRs) raised awareness, positioning deprescribing as a routine practice to be embedded in care.

‘When you’ve got a big national lever like NHS England coming in and dropping a DES [Network Contract Directed Enhanced Service] like that, that says you must look at polypharmacy and deprescribing in your structured medication reviews, it adds heft to it’ [HCP 23, CCG]

However, HCPs believed only a minority prioritized incorporating it into practice. There was a lack of clear direction on how routine deprescribing should be implemented in primary care and whether HCPs felt responsible for it.

‘I don’t think there’s a consensus. As a profession, we are a lot more obsessed with trying to solve the [clinical] problem at hand’ [HCP 7, practice pharmacist]

Most HCPs reported positive patient responses to deprescribing discussions. Patients often welcomed the idea of taking fewer

tablets, and some would only express this preference once deprescribing was mentioned. This made deprescribing conversations more productive for both patients and HCPs.

'I have a lot of patients that say, I hate taking tablets... especially as people get older' [HCP 20, community pharmacist]

HCPs recognized the importance of fostering patient consensus on deprescribing. It was essential for patients to understand that deprescribing is not a cost-cutting exercise, like switching between brands, and that it does not signify an abandonment of care. HCPs recounted instances where patients expressed concerns, often influenced by hearsay from others.

'Some patients can be a little bit negative. Is it because the NHS can't afford it? Is that why you're taking me off my medication?' [HCP 14, GP]

Theme 2: Routine implementation, roles and responsibilities

This theme explores HCP views on what is needed for deprescribing to become routine practice and the roles and responsibilities needed for this to happen.

Subtheme 1: Engaging and preparing staff and patients

HCPs emphasized stakeholder buy-in for routine deprescribing in primary care. This buy-in from those involved in deprescribing was essential to ensure new services did not conflict with existing ones. Deprescribing also needed to be viewed positively by policymakers, patients, and HCPs and promoted to all staff.

'The first thing to do would be to get buy-in from the rest of primary care' [HCP 19, community pharmacist]

A key aspect was training current and future HCPs to consider deprescribing when prescribing or reviewing medicines. The goal was to help HCPs shift from automatically prescribing for every clinical issue to being more selective when introducing new medications.

'Educating a new generation of GPs ... when they're starting new medicines, to be cautious and wary about why they're starting it' [HCP 23, CCG]

HCPs stressed the need to train community pharmacists to ensure consistent deprescribing messages across healthcare providers. This training should include clinical deprescribing knowledge and how to participate in deprescribing processes.

'[Community pharmacists] need to be part of [training] too. Because if they are still looking at solifenacin [medicine for incontinence] as a good drug, and not looking at its anticholinergic burden, then we're having two different conversations with the same patient' [HCP 7, practice pharmacist]

HCPs emphasized deprescribing education for patients. Patients should understand deprescribing, the different models (e.g. slow titration or complete stop), its benefits, and why an HCP might suggest it. However, it was crucial that this did not encourage patients to stop medications without HCP advice. HCPs suggested using patient information campaigns, posters, and leaflets or integrating education into the NHS app.

'Education and material for patients ... why couldn't the act of deprescribing via a review of their medicines be initiated by a patient?' [HCP 7, practice pharmacist]

Subtheme 2: Pharmacists conducting deprescribing

HCPs noted that PCNs/practice pharmacists are well-positioned to identify and conduct deprescribing, as it should be an integral element of SMRs. To facilitate this, pharmacists should have protected and sufficient time for in-depth SMRs to highlight deprescribing opportunities.

'[PCN/practice pharmacists] are doing the structured medication reviews now ... you're looking at what can be deprescribed' [HCP 22, PCN pharmacist]

A discussion emerged about community pharmacists identifying patients who could benefit from deprescribing and referring them onward. This included conducting medicine reviews, assessing indications, providing opinions on whether a medicine was necessary, and identifying ADRs. Community pharmacists were seen as having the potential to provide feedback to prescribers, helping them make informed deprescribing decisions.

'I think the main role that we [community pharmacists] could have is highlighting the medications that we think, hmm, I don't know whether this is necessary' [HCP 17, community pharmacist]

Yet barriers to community pharmacist involvement were often raised. One issue was limited access to complete medical records, which hindered pharmacists' understanding medicine indications. Other issues included limited communication with healthcare teams and potential conflicts of interest due to reduced dispensing volumes and income.

'I think there's a bit of a conflict of interest with some of the community pharmacists; they get paid for dispensing, so it's a bit difficult.' [HCP 10, GP]

Theme 3: Keeping deprescribing safe

This theme explores the perceptions and attitudes of HCPs regarding maintaining safety during deprescribing in primary care.

Subtheme 1: Follow-ups and safety nets

HCPs acknowledged the safety risks of deprescribing, recognizing the potential for adverse outcomes if a beneficial medicine is stopped, leading to symptom exacerbation or disease progression. They also noted the risk of withdrawal symptoms and reduced patient confidence if outcomes were unfavourable. Given these risks, some HCPs expressed concern that patients might become hesitant to future deprescribing attempts.

'They've lost a bit of confidence and maybe be a bit more reluctant to stop medications in the future' [HCP 21, PCN pharmacist]

Participants emphasized the importance of mitigating risks by ensuring patients were monitored through follow-up appointments. The nature of which would vary depending on the medicine being deprescribed.

'To not just have a one-off deprescribing episode. To follow the patient up regularly' [HCP 19, community pharmacist]

Follow-up appointments allowed HCPs to monitor patients' progress with deprescribing, assess safety, and identify any ADRs, improving their deprescribing practices. However, when resources or time for follow-ups were insufficient, HCPs hesitated to initiate deprescribing, concerned about their ability to ensure patient safety.

'Sometimes you may deter yourself from having that [deprescribing] discussion because there is no capacity to follow-up' [HCP 7, PCN pharmacist]

To minimize risks and promote safety, HCPs emphasized safety-netting patients after deprescribing. This went beyond follow-up measures and focused on ensuring patients knew where to seek help if they experienced adverse effects or concerns. It also included contingency plans for resuming discontinued medicines if needed.

'Having someone to contact if they need support between those follow-up calls or visits' [HCP 21, PCN pharmacist]

Subtheme 2: A reverse new medicine service

When discussing community pharmacists roles in deprescribing, the idea emerged that they could act as a safety net/follow-up system. This involved community pharmacists following up patients who had a medicine deprescribed, offering a time and place for patients to ask questions or seek help with issues related to deprescribing. It was likened to the currently NHS-commissioned New Medicine Service (NMS), where pharmacists schedule follow-up appointments with patients starting long-term medicines to monitor their well-being, with similar timelines and responsibilities [21].

'The GP stopped a medication, and they flag to the community pharmacy to follow-up, it would be handled similar to the New Medicine Service... you would then contact the patient... I will give you a series of phone calls, or you can come in, discuss, and monitor how you're getting on... I will report back to the GP to ensure they're aware' [HCP 17, community pharmacist]

HCPs highlighted that community pharmacies would be helpful for patients because they are accessible and pharmacists have established therapeutic relationships with them.

'The good thing about that is that the community pharmacist is ideally placed to have that conversation' [HCP 23, CCG]

However, HCPs explained that it would be vital for community pharmacists to be equipped to monitor patients after deprescribing. For example, they should be able to take blood pressure measurements after deprescribing an anti-hypertensive. If an adverse reaction occurred, pharmacists should have tools and non-pharmacological interventions available to address the issue.

'If you stop a blood pressure medication, could a pharmacist check somebody's blood pressure? Yeah, absolutely' [HCP 19, community pharmacist]

Subtheme 3: Communication and continuity of care

HCPs explained that they mitigated safety risks by carefully managing deprescribing discussions with patients and their families. This included clearly explaining deprescribing indications, understanding patients' views on the ratio-

nale, discussing what to expect, and ensuring patient-centred conversations.

'If the patient knows what will come, they are more likely to be on board with it and continue and persevere' [HCP 9, GP]

HCPs stressed effective communication and continuity of care among those involved to ensure patient safety. They considered it crucial to maintain patient engagement throughout the process and prevent other HCPs from reinstating deprescribed medicines without understanding the rationale.

'Continuity of care is important because patients often find they're quite abandoned if we stop something and then if rebound symptoms happen, and they speak to somebody else [who restarts the stopped medicine]' [HCP 8, GP]

Discussion

Summary

This study identified key views and strategies that influence safe deprescribing normalization in English primary care. HCPs highlighted challenges arising from cultural prescribing norms, safety concerns, lack of structured guidance, and fear of litigation. PCN/Practice Pharmacists emerged as critical for successful deprescribing, particularly through SMRs, while community pharmacists could provide essential follow-up safety support. Novelty lies in applying NPT to explicitly examine how deprescribing can be routinely embedded into primary care practice and the proposal of a pharmacist-led 'reverse New Medicine Service'. This research advances understanding by offering practical strategies for overcoming existing barriers, aiming to normalize deprescribing and improve patient safety.

Strengths and limitations

A strength of the research methodology was incorporating NPT as an underpinning theory. This provided insightful understanding of how participants' views regarding proactive deprescribing affected the implementation and normalization of intervention in practice.

This research was conducted during the COVID-19 pandemic, and so to comply with social distancing regulations, interviews were conducted online or via telephone, which may be deemed a limitation. However, evidence shows that online qualitative data collection has its own advantages, such as enhanced accessibility, recruitment, and transcription efficiency, whilst maintaining similar richness in data when compared to face-to-face methods [22]. Another limitation was that one of the focus groups conducted consisted of participants from one practice, and therefore, the views may contain geographical bias. On the other hand, the views generated from the focus group were corroborated with views shared by other participants who worked within different geographical regions.

Key findings

Participants described deprescribing as a complex and challenging practice to normalize within the current prescribing culture. The language used when initiating medicines (e.g. 'for life')

and the view of deprescribing as unguided judgment hindered clinicians' ability to incorporate it into routine practice. Concerns about the risks of deprescribing and the fear of litigation if patient harm occurred further impacted confidence, which was only improved through positive personal deprescribing experience.

Primary care pharmacists were identified as key to deprescribing through SMRs. Recent policies, such as the NHS Long-Term Plan, provide a platform for them to conduct thorough medication reviews and assess the need for deprescribing [23]. However, the role of community pharmacists was less clear. Debate over their responsibilities arose due to a lack of policy guidance, the training required, and limited access to medical records. One identified role involved community pharmacists recognizing deprescribing opportunities for subsequent review by a prescribing clinician, though this was tempered by the view that appropriate mechanisms would need to be established to ensure the relevance and suitability of such referrals. Despite this, there was general agreement that community pharmacists could help maintain safety post-deprescribing, with a novel safety-netting role identified, similar to a reverse NMS. This novel approach would involve community pharmacists following up patients who had undergone deprescribing to check for adverse effects, distinguish between ADWEs and minor ailments, and provide monitoring, such as blood pressure checks. This would help efficiently address complications and enhance patient safety. In addition, this intervention, as a commissioned service with incentives, could potentially address the conflict of interest cited in relation to community pharmacists and dispensing payments. Participants were receptive to this role as they stressed the importance of deprescribing safety and expressed concerns about the risks involved, particularly with preventative medicines. However, interestingly, participants could not recall an incident in which patient safety was compromised.

When exploring how routine deprescribing can be normalized in primary care through the lens of NPT, there was a collective call for expanded guidance and MDT support in deprescribing roles. This was affiliated with the subconstruct of contextual integration within the construct of collective action, relating to the organizational support and management of resources concerning deprescribing [24]. To normalize deprescribing, guidance is needed around specific clinical deprescribing scenarios to support clinician judgment and ensure they feel confident that deprescribing decisions are justified. Furthermore, clinicians would benefit from sharing deprescribing activities across the MDT, such as following up with patients. Providing clinicians with a forum to share deprescribing decisions and experiences could also foster learning and boost decision-making confidence. Participants highlighted how this would support consistent deprescribing whilst feeling supported.

Within the NPT construct of cognitive participation, fostering stakeholder buy-in is a potential pathway to shift away from a prescription-driven culture and maintaining deprescribing safety. Buy-in entails personal and professional commitment to actively engaging in a process or initiative—without which HCPs are unlikely to participate at the necessary level [25]. Stakeholder engagement is also emphasized in the Medical Research Council guidance for developing complex healthcare interventions, as it enhances adherence and facilitates end-user adoption [26]. In deprescribing, key stakeholders include patients, carers, HCPs, and policymakers, who must actively engage with deprescribing

Table 4 Subconstructs of cognitive participation and their application to deprescribing (adapted from [14]).

Sub-construct	Application to deprescribing
Enrolment	Do stakeholders believe they are the correct people to drive forward deprescribing implementation in primary care?
Initiation	Are stakeholders willing and able to engage others in the implementation?
Activation	Can stakeholders identify what tasks and activities are required to sustain deprescribing in primary care?
Legitimation	Do stakeholders believe it is appropriate for them to be involved in deprescribing in primary care.

ing initiatives. Therefore, engagement strategies may enable stakeholders to recognize their pivotal role in implementation (enrolment), enhance their capacity and willingness to engage others by integrating diverse perspectives (initiation), identify key actions required to sustain deprescribing efforts (activation), and reinforce the significance of each stakeholder group's involvement in primary care deprescribing (legitimation).

Interpretation of findings through NPT

Theme 1 identified key insufficiencies and opportunities to enhance the normalization of deprescribing through the lens of NPT. Deficits in deprescribing guidance, confidence in practice, training for HCPs, and the necessity for collaborative work align with the concept of collective action. Strengthening collective action through targeted guidance, comprehensive HCP training (particularly via experiential learning), and fostering multidisciplinary collaboration can advance deprescribing normalization.

Theme 2 underscored the necessity of stakeholder buy-in to support the normalization of deprescribing. This requirement aligns with the cognitive participation construct within NPT, emphasizing the work needed to enrol individuals in a new intervention. As outlined in Table 4, stakeholder buy-in is further characterized by subconstructs of cognitive participation, which highlight the significance of stakeholders perceiving themselves as key implementers, demonstrating commitment to engagement, and sustaining involvement over time.

Theme 3, while centred on safety, highlighted the need to strengthen cognitive participation for routine and safe deprescribing. Engaging patients, families, and carers was seen as crucial for safety, emphasizing the importance of supporting clinicians to involve others and helping patients and carers see their role as appropriate—aligning with the sub-constructs of initiation and legitimation within cognitive participation.

Comparisons with existing literature

Previous literature has reported barriers to deprescribing, including the prevailing prescribing culture, fear of legal consequences and adverse effects, insufficient deprescribing tools, and a lack of resources allocated for deprescribing [7, 27]. A systematic review by Doherty *et al.* identified cultural, organizational, interpersonal,

and individual barriers to deprescribing in primary care, particularly among adults with multi-morbidity and polypharmacy [27]. Similar to this study, this review highlighted cultural barriers such as prescribing culture, organizational barriers such as time and staffing shortages, and interpersonal barriers, including uncertainties around deprescribing or medicine indications, lack of guidance, and fears of adverse effects and legal repercussions [27]. Similar findings from other systematic reviews emphasize the challenge of overcoming existing prescribing culture and the need for readily available deprescribing tools to normalize deprescribing practices [7].

This study builds on existing literature by highlighting the importance of language and communication with patients when initiating medicines and its impact on future deprescribing. Recent research has started to focus on improving deprescribing conversations to help clinicians introduce the topic to patients [28, 29]. Ailabouni *et al.* found that a limited understanding of deprescribing by patients hindered clinicians' ability to initiate such discussions [30]. Introducing the possibility of deprescribing at the time of prescribing could reduce these barriers by preparing patients for the potential of future deprescribing. This requires a shift away from the messaging that medicines are 'for life'.

There is limited literature discussing the concept of community pharmacists acting as deprescribing safety nets. However, Bužančić *et al.*'s systematic review of community-based pharmacists' roles in deprescribing identified their value in medication reviews, education initiatives, and pharmacist-led interventions [31]. Pharmacists played a key role by monitoring patients throughout the deprescribing tapering process and assessing outcomes to ensure success [31]. This is similar to the findings of this research; however, participants related this to pre-existing NHS provision through the NMS. Doing so incorporated the benefit of community pharmacist inclusion, as identified by Bužančić *et al.*, whilst providing a novel and practical understanding of how this may look in current NHS practice [31]. Further research is needed to define the logistics of a community pharmacy deprescribing safety net.

Conclusion

Deprescribing remains a complex intervention to integrate into routine care due to ingrained prescribing norms, concerns about patient harm, and legal risks. Clinicians' confidence in deprescribing was largely shaped by personal experience, highlighting the need for greater support and guidance. While primary care pharmacists were seen as central to deprescribing efforts, supported by recent NHS policy, the role of community pharmacists remained unclear due to a lack of formal direction. However, community pharmacists were recognized as valuable in ensuring patient safety post-deprescribing through monitoring and follow-ups, akin to a novel 'reverse' NMS.

This research highlights the need for structured national guidance, multidisciplinary collaboration, and defined roles to support routine deprescribing in primary care. Embedding deprescribing into practice requires cultural change, improved training, SMRs to occur and stakeholder engagement across the system. Future research should explore the development and evaluation of pharmacist-led follow-up models, such as a reverse NMS, to enhance the safety and sustainability of deprescribing initiatives.

Author contributions

Daniel Okeowo (Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Writing—original draft), Beth Fylan (Conceptualization, Methodology, Supervision, Writing—review & editing), Tabish Zaidi (Conceptualization, Methodology, Supervision, Writing—review & editing), and David Alldred (Conceptualization, Methodology, Supervision, Writing—review & editing)

Supplementary material

Supplementary material is available at *Journal of Pharmacy Practice* online.

Conflicts of interest

The author(s) declare that there are no conflicts of interest.

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Data availability

The datasets generated and/or analysed during the current study are not publicly available due to ethical reasons but are available from the corresponding author on reasonable request.

Ethical approval

The name of the committee: East of Scotland Research Ethics Service (EoSRES), the date the work was approved on 23 March 2021, and the number of the certification: 21/ES/0020.

Data access statement

The author(s) have full access to the study data, and this is ongoing.

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