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Delivering a primary care review for people prescribed opioids for persistent pain: Facilitators and barriers facing practice pharmacists

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Abstract

Background

People living with persistent non-cancer pain often are prescribed opioids long-term, despite a lack of evidence for their long-term effectiveness and safety. This study informed the design of a new practice pharmacist-led review (PROMPPT review) for people prescribed opioids for persistent pain in UK primary care.

Aim

To explore the perspectives of pharmacists working in UK general practices regarding the proposed PROMPPT review and identify barriers to and facilitators of its delivery in practice, including supporting opioid deprescribing where appropriate.

Design and setting

Multi-method qualitative study in primary care.

Method

Pharmacists with experience of consulting in primary care participated in semi-structured interviews (n=13) and two focus groups (n=16) to explore attitudes, beliefs and experiences of a proposed PROMPPT review for people living with persistent pain. The Theoretical Domains Framework (TDF) provided a framework for data collection and thematic analysis.

Results

16 facilitators and barriers for delivery of a pharmacist-led PROMPPT review were identified across 10 domains of the TDF and mapped to components of the COM-B

model of capability (knowledge, skills), motivation (social or professional role and identity, beliefs about capabilities, beliefs about consequences, intentions, goals, emotions), and opportunity (environmental context and resources, social influences).

Conclusion

This study provides theoretically based evidence of factors influencing pharmacists' delivery of PROMPPT reviews in relation to pharmacist capability, motivation, and opportunity. Factors included access to evidence-based patient-facing resources, receiving professional colleagues' peer support, and having a therapeutic alliance with patients. This work informed the co-design of the intervention and pharmacist training package.

Keywords

opioid analgesic, chronic pain, general practice, qualitative research, primary health care, pharmacist

How this fits in

Best practice guidance recommends patients prescribed long-term opioids for persistent non-cancer pain are regularly reviewed and opioids gradually tapered if treatment goals are not met. To support implementation of this guidance, we aimed to develop a proactive review for people prescribed opioids for persistent pain (PROMPPT review) to be delivered by pharmacists working in general practices. This study identified facilitators and barriers, as perceived by pharmacists, for effective delivery of a PROMPPT review, and highlights theoretically informed training needs mapped to capability, motivation and opportunity, to support pharmacist delivery of these reviews in practice.

Introduction

Around 43% of adults in the UK are living with persistent pain,[1] defined as lasting 3 months or longer and not caused by cancer,[2] and are commonly treated in general practice (primary care). Opioids are often prescribed,[3-4] despite a lack of evidence for long-term effectiveness and the risk of adverse events.[5-8] High initial doses, duration of prescribing after surgery and a range of patient-level characteristics have been associated with long-term (and potentially problematic) opioid use.[9] Guidance recommends patients prescribed opioids long-term for persistent pain are regularly reviewed, however limited time in routine general practitioner (GP) appointments means this is not consistently achieved.[10-12]

Since 2016, a large expansion in the number of pharmacists working in UK general practices has seen them take on a greater role in medication reviews and primary care management of chronic conditions.[13-18] Systematic reviews of pharmacist-led interventions provide some evidence of effectiveness in optimising opioid therapy and persistent pain management but further high quality clinical trials are needed.[19-20] The PROMPPT (**P**roactive clinical **R**eview of patients taking **O**pioid **M**edicines long-term for persistent **P**ain led by clinical **P**harmacists in primary care **T**eams) research programme aims to build on existing evidence and develop a new primary care review for patients prescribed opioids for persistent pain (called 'PROMPPT review' herein) to be delivered by practice pharmacists (called 'pharmacist' herein) who are Independent Prescribers.

This study formed part of a larger qualitive programme of work informing the iterative development and co-design of the PROMPPT intervention (i.e., PROMPPT review and pharmacist training package).[21-23] Previously published research identified anticipated facilitators and barriers of a PROMPPT review for people living

with persistent pain (i.e., the intervention's intended recipients).[21] Understanding the perspectives of those delivering the proposed review is also important to maximise effectiveness.[24] This study therefore aimed to identify barriers and facilitators perceived by pharmacists, who work clinically in primary care and are Independent Prescribers, in delivering a PROMPPT review consultation to support development of the overall intervention. Delivery of a PROMPPT review was conceptualised as a complex behaviour that may involve patients telling their pain story, initiating and navigating discussions about reducing opioids, talking about self-management, making referrals, booking follow-ups, and forming opioid reduction plans, where appropriate.

METHOD

Design

A multi-method qualitative study was conducted comprising of pharmacist interviews and focus groups. The Theoretical Domains Framework (TDF)[25] was used as a guiding framework for data collection and analysis. The TDF has 14 domains, situated within the COM-B model of behaviour change of capability, opportunity and motivation.[26] The TDF allows for a wide range of potential influences to be considered for pharmacist delivery of a PROMPPT review.

Recruitment

Pharmacists were eligible if they were working clinically in UK general practice and had completed independent prescriber training. Targeted recruitment was conducted through professional networks in the East and West Midlands, UK: two regions that would be the focus of a subsequent feasibility study[27] and randomised controlled

trial[28] (see Supplementary file S1). Remuneration for their time was offered consistent with their professional pay-band.

Data Collection

Interview and focus group topic guides drew on TDF domains and were informed by stakeholder discussions.[23] Interviews were conducted first (July 2019-October 2019) and questions aimed to explore experiences of consulting with patients, current approaches to opioid deprescribing, and views of a potential new pain review delivered by pharmacists in primary care (Supplementary file S2). Focus groups were conducted second (November 2019 and January 2020; Supplementary file S3). At this stage of the programme of work, an initial prototype of the intervention was proposed with preliminary intervention components including a patient facing pre-consultation form and an interactive leaflet that was used as stimuli for in-depth exploration of the proposed review (Supplementary files S4 & S5).

Interviews were conducted by NC (female) via telephone. Recruitment stopped when data saturation had been reached.[29] Focus groups were facilitated by CJ (female) and CW (female). RK (male) attended the second focus group to respond to pharmacy specific queries from participants.

Research team members collecting data were experienced post-doctoral qualitative researchers. NC, CJ and CW did not know participants prior to their involvement in the study. RK knew some participants in focus group 2 as professional colleagues. Interviews and focus groups were digitally audio-recorded.

Data preparation and analysis

Audio-recordings were transcribed verbatim, anonymised and checked for accuracy and imported into NVivo v12 to aid data management. To ensure rigour, a phased approach was followed. Transcripts were read and re-read for familiarisation. Three members of the multidisciplinary research team (CJ, applied health expertise and trained in the person-based approach to intervention development;[30] CW, chartered psychologist working in applied health and behaviour change; SW, academic pharmacy) independently coded three transcripts deductively to TDF domains.[31-32] Regular meetings with the wider team (JA, NC, SH, TH) were held to discuss initial coding decisions until consensus was reached. All remaining data was deductively coded by three researchers (NC, EH, CW) to TDF domains with regular meetings to ensure a robust approach. This was followed by inductive analysis within each TDF domain to generate domain-specific subthemes.

RESULTS

Thirteen telephone interviews (mean length 49.60 mins) were conducted. Sixteen pharmacists attended one of two focus groups (n=7 and n=9; mean length 132 mins).

During data collection, pharmacists drew on their experiences of primary care consultations. All interviewed participants reported conducting medication reviews and seeing people living with persistent pain and deprescribing. From the interviews and focus groups, pharmacists talked about facilitators and barriers to delivering a proposed PROMPPT review related to 10 of 14 TDF domains containing 16 subthemes, which are described below (summarised in Table 1 and Supplementary Table S6).

Knowledge

Experience of consulting in primary care

Experiential knowledge gained from consulting with patients in primary care was considered a prerequisite for delivering a PROMPPT review. Specifically, experience consulting with people with persistent pain was viewed desirable as these patients often have co-morbidities and described as complex. Pharmacists also need to know the services available for referral and associated policies and processes. Pharmacists told us they would be uncomfortable conducting this type of review when newly qualified or had recently become a prescriber. What constituted 'enough' experience varied, although most participants agreed between 6- and 12-months consulting in general practice was desirable, and those less experienced would benefit from training.

Knowledge about pain, pain management, and opioid deprescribing

Being knowledgeable about the biopsychosocial nature of persistent pain was considered important for supporting patients. Specialised knowledge of medicines, associated side effects, and long-term effectiveness was considered an advantage when reviewing pain medicines and optimising medication regimes. Participants also spoke about having knowledge around non-pharmacological approaches as valuable to support patients' pain management. Participants drew on experiential knowledge when describing their understanding of deprescribing, however some desired additional training around polypharmacy and deprescribing opioids specifically.

'I'd have to brush up on my clinical knowledge around what combinations and how we should go about deprescribing them so,

the clinical aspects behind it, like what interventions and how do we make those interventions.' (*focus group 1)*

Patient knowledge of a PROMPPT review

Pharmacists suggested it would be helpful for patients to know the role of the pharmacist and what to expect before attending a PROMPPT review. They liked the idea of a pre-consultation form that encouraged patients to consider their concerns about pain and pain medicines, suggesting it would help patients prepare for the consultation.

Skills

Person-centred shared decision-making

Most pharmacists suggested patient-centred consultation skills are needed to deliver a PROMPPT review. Skills include managing patient expectations about persistent pain and pain relief, offering information about medicines, addressing concerns, listening to what matters most, understanding barriers to reducing opioids, showing empathy and compassion, and involving patients in decision-making.

'the patient needs to feel that they've been included on all of the decisions…they don't want to feel like it's happened to them, they want to feel they've been the one to decide things' *(interview participant 19)*

Participants also told us it is important to find out patients' readiness to reduce opioids and to adapt the consultation accordingly.

'the danger we have with pharmacists is we fix things and the danger is if you see it as a cycle of change model we launch

straight into the action phase, forgetting actually there are four steps before that.' *(interview participant 15)*

Participants told us person-centred skills required for a PROMPPT review, such as facilitating patient motivation to reduce opioids, go beyond what is required for a regular medication review and recognised a need for further training. In contrast, some participants suggested times when a more paternalistic approach might be appropriate. For example, when patient safety is at risk or to encourage patient attendance (e.g., pause repeat prescriptions until patient has attended a PROMPPT review).

Supporting patient pain management

Participants spoke about skills in developing and supporting individualised pain management and tapering plans. To do this effectively, they felt pharmacists need to be independent prescribers, skilled in deprescribing, and able to manage patient expectations (e.g., around timing of doses, withdrawal symptoms). Where plans include a tapering schedule, participants suggested any reduction is presented as a trial and the impact of making this change regularly reviewed. As such, participants emphasised skills in mentoring and supporting patients to problem solve potential barriers during the process of reducing their opioids.

Social role and professional identity

Part of pharmacist's role in primary care

Many participants saw a PROMPPT review aligning with their current professional responsibilities of medicine management and safe prescribing. As relatively new members of the primary care team, the opportunity to lead such a

service was viewed favourably and something that may help clarify their expertise to colleagues.

> 'it's very important that pharmacists get embedded and are seen to be the role where we will be reviewing these medications, we will be making sure that they're prescribing safely around these areas that are such high risk.' *(interview participant 21)*

Beliefs about capabilities

Confidence to deliver PROMPPT reviews

Participants expressed variability in confidence for conducting PROMPPT reviews. Greater confidence was anticipated consulting with patients willing to discuss their pain management and who are open to opioid tapering. They spoke about being confident in arranging referrals and consulting with colleagues for complex cases where needed, although less confident in producing a plan for pain self-management. Some pharmacists also highlighted the potential difficulty of healthcare professionals who have initiated opioids then recommending opioid deprescribing.

> 'They think you got them there. I think I had that conversation with one of the patients and I said, 'You're on this high dose of opioid,' and she said, 'It was a doctor from your surgery that got me here." *(focus group 2)*

Many pharmacists expected not all patients would want to reduce their opioids and anticipated challenging conversations around tapering with patients who have been taking opioids for a long time, perceive them to be beneficial, want a

pharmacological alternative, or have previous negative experiences with healthcare services.

> 'It's difficult if they think, 'No, that's my pain relief and that helps me. Leave me alone. You're not touching anything.' If they really truly believe that's helping them, it's quite difficult to have that conversation.' *(focus group 2)*

Participants felt their confidence could be maintained if they acknowledged that not all patients will be ready to reduce their opioids and, in these instances, felt it was important to avoid patient conflict.

Beliefs about consequences

Patient benefits

Pharmacists thought a PROMPPT review could benefit patients by providing education around pain and pain management, showing patients they are valued, and identifying a named point of contact regarding pain in primary care. Further benefits anticipated were deprescribing of inappropriate opioids, improved pain management, reduced adverse side effects, enhanced quality of life, improved understanding of pain and pain medicines, and using medicines more appropriately (e.g., timing of doses).

Intentions

Intention to review patients

Pharmacists suggested PROMPPT reviews should target specific patient groups because "there are going to be thousands of patients" *(focus group 1)* especially in larger practices situated in areas of deprivation. Pharmacists told us they would

prioritise delivery for “the high dose ones” *(focus group 1)* perceived at greatest risk as well as those who were more likely to engage in a pain review.

Goals

Do what’s best for the patient

Participants said their goal is to help improve patients’ quality of life by reviewing current pain management and opioid therapy in relation to what is important to the individual. Some recognised what they consider best for patients may not align with the patient perspective, so it is important to find a shared agenda to support patient engagement.

> ‘Finding out what their experiences were, what they wanted from the pain, how the pain was impacting their life, what they thought of their medication and where they wanted to go with the medication.’ *(interview participant 22)*

Participants said finding a shared agenda may be challenging when patients’ expectations exceed what a PROMPPT review can offer such as seeking a pharmacological alternative to opioids.

Environmental context and resources

Capacity and resource to deliver PROMPPT reviews

Time was the most discussed resource, with all interviewed participants and focus groups highlighting that PROMPPT reviews need to be longer than the standard 10-minute consultation. Lack of time was considered a barrier to successful deprescribing and a contributing factor to prescribing. Many suggested an initial review would require 30-minutes to 1-hour, ideally delivered in-person, but

follow-up appointments could be done remotely. Follow-ups were considered "very important" *(focus group 1)* for patients to feel supported and to monitor impact of medicine changes, with the option to contact the pharmacist between appointments if needed.

Participants also spoke about a wide range of services that may be relevant for patients including other health professionals, stop smoking services, crisis team, social prescribers, wellbeing advisers, and Citizen's Advice Bureau. Variation in availability and access to different services, waiting times, and practice-level permissions to make referrals were discussed as potential barriers to meeting patient need.

Participants considered evidence-based resources that are accessible to patients (e.g., available online or in print, in different languages) would be valuable and had multiple potential benefits of building rapport as well as supporting the delivery and receipt of information.

> 'I always find that quite useful by showing the videos and then printing out the literature rather than just giving them a website.'
>
> *(focus group 1)*

Lack of definitive tapering guidelines

Pharmacists told us although local guidelines exist for deprescribing there is nothing definitive. They felt a tapering template would be helpful and may reduce the risk of patients experiencing withdrawal symptoms or other negative effects.

A consistent approach

Several participants supported a consistent approach taken within each practice to guard against mixed messaging and unintentional reversal of plans agreed at a PROMPPT review (e.g., colleagues reinstating a higher opioid dose). They also felt

all general practice staff should be aware of the PROMPPT review and that it should be documented in the patients' medical record. With practice-wide support, pharmacists felt they could discuss complex cases at multidisciplinary meetings or seek GP input. To facilitate a consistent approach, participants recommended embedding a clinical template into the patients' medical record that includes the review structure, key questions, and care plan agreed.

Pharmacists also suggested PROMPPT reviews would benefit from being an incentivised service to be prioritised by practices and protect pharmacist time for its consistent delivery.

> 'I suppose there's going to be variations across different practices, some people will have really bought into it, some people want their pharmacist to do other things they perceive to be more important.' *(interview participant 22)*

Social influences

Pharmacist social support

Pharmacists spoke about benefits of social support for delivering PROMPPT reviews to discuss complex cases, monitor prescriptions, support completion of referral processes, and learn from experienced colleagues (e.g., shadowing opportunities, sharing of best practice, role play).

> 'Pharmacists who have got experience dealing with these patients, telling us about different consultations, how well they've gone and practising role plays and things like that because I think that's the most important thing' *(interview participant 19)*

Patient-pharmacist rapport

Participants shared strategies that may help develop and maintain patient trust and develop rapport (e.g., reassure patients consultations are confidential, introduce themselves to patients by their first name, support patient priorities, have honest conversations about the tapering process, regular follow-ups). Establishing trust and rapport with patients takes time to develop and given the potential of the PROMPPT review to involve deprescribing, this may be challenging to achieve.

> 'The relationship, so you're saying they've seen a GP for years and then they go to someone random and if we just start talking about reduction straight away it's not going to go well.' *(interview participant 23)*

Emotions

Pain reviews are emotionally demanding

Pharmacists spoke of conversations with patients living with persistent pain leading to both positive and negative emotions and said they could be stressful and worrisome. Some participants suggested negative emotions can be experienced long after a consultation and strategies to protect their own wellbeing were important.

> 'I mean there's some very sad stories when you're dealing with these people, when you listen, I mean you probably know, er, you can't help but be affected by them.' *(interview participant 19)*

Table 1. TDF domains, facilitator and barrier subthemes for pharmacist delivery of a PROMPPT review

COM-B	TDF Domain	Subtheme
Capability	Knowledge	• Experience of consulting in primary care
		• Knowledge about pain, pain management, and opioid deprescribing
		• Patient knowledge of a PROMPPT review
	Skills	• Person-centred shared decision-making
		• Supporting patient pain management
Motivation	Social or professional role and identity	• Part of pharmacist's role in primary care
	Beliefs about capabilities	• Confidence to deliver PROMPPT reviews
	Beliefs about consequences	• Patient benefits
	Intentions	• Intention to review patients
	Goals	• Do what's best for the patient
	Emotions	• Pain reviews are emotionally demanding

COM-B	TDF Domain	Subtheme
Opportunity	Environmental context and resources	• Capacity and resource to deliver PROMPPT reviews • A consistent approach • Lack of definitive tapering guidelines
	Social influences	• Pharmacist social support • Patient-pharmacist rapport

Discussion

This study forms part of a research programme to develop a pharmacist-led review in primary care for people with persistent pain (PROMPPT review), to support opioid deprescribing, where appropriate. It provides evidence regarding important factors to consider for its delivery, with 16 facilitators and barriers identified within 10 domains of the TDF. Key domains for successful delivery relate to COM-B components of capability (knowledge, skills), motivation (social or professional role and identity, beliefs about capabilities, beliefs about consequences, intentions goals, emotions), and opportunity (environmental context and resources, social influences). Overall, pharmacists perceived multiple benefits for delivering a PROMPPT review which aligned well with current knowledge and skills, however gaps in expertise specific to having opioid deprescribing conversations were identified as well as a need for further resources and social support.

Strengths and limitations

A key strength was the use of multiple methods. Interviews allowed pharmacists to consider their views and clinical experiences in-depth. Focus groups enabled pharmacist shared experiences to be heard, clarified and expanded on. For example, focus group participants would often ask follow-up questions to another participant's answer. Data analysis followed a robust systematic approach using an established theoretical framework and multidisciplinary team discussions ensured critical consideration of key factors.

Our study has some limitations. Participants all worked in specific Regions of the UK (East and West Midlands) and responded to recruitment advertisements. They may not be representative of all practice pharmacists working in primary care. We

405 did not systematically collect participant demographic characteristics. However, we
406 had similar numbers of male and female participants and a range of years working in
407 primary care as shared during pharmacist interviews (9 months -13 years).
408 Following data collection, participants did not have an opportunity to review
409 transcripts for comment or correction nor the findings. However, multidisciplinary
410 stakeholder meetings, that included pharmacists, critically discussed main findings
411 as part of the intervention development process.[23]
412
413 **Comparison with existing literature**
414 The present study supports previous research that considered the patients'
415 perspectives on a PROMPPT review[21] and goes beyond consideration of pharmacist
416 knowledge and skills; two domains that have dominated previous practitioner
417 deprescribing interventions and deemed insufficient when supporting practitioners,
418 such as pharmacists, to change their behaviour when consulting with patients.[33]
419 A consistent finding between patients and pharmacists is the importance of
420 building a productive patient-pharmacist relationship (TDF domain: Social support)
421 that relies on communication skills to support a person-centred approach to shared
422 decision-making (TDF domain: Skills).[21] Specifically, pharmacist skills in expressing
423 empathy, letting a patient know they are believed and cared for, as well as actively
424 listening to patients' concerns all contribute towards the development of rapport and
425 mutual trust considered key for engaging patients in conversations about an opioid
426 reduction.[34] Research suggests practitioners have concerns that deprescribing
427 conversations can harm rapport with patients as these are often difficult or
428 challenging.[11,35-38] Pharmacists working as part of primary care teams is an emerging
429 role and some may not yet have a strong therapeutic alliance with their patients.[35]

This study reinforces the importance of nurturing these alliances from a pharmacist perspective and indicates pharmacists may benefit from training in communication skills to support person-centred conversations for discussing an opioid reduction.

Research evidence highlights the challenges of having opioid deprescribing discussions and this study shows pharmacists share these concerns (TDF domain: Beliefs about capabilities) especially when there is a lack of tapering guidelines[31] and variation in availability of resources (e.g., patient information, other health services) (TDF domain: Environmental context and resources).[11] Pharmacists also highlighted the potential emotional burden of these conversations (TDF domain: Emotions), a negative impact previously cited by GPs and advanced nurse practitioners.[11,39] Findings point to a pharmacists' need to have strategies to cope with patient disclosure in order to protect their own wellbeing.

Another reason conversations around opioid deprescribing may be challenging is perceived patient resistance. A consistent finding across multiple studies, this study supports the view that patients are anticipated to vary in levels of engagement. Patient resistance can be linked to fear of pain, withdrawal, or a belief that opioids are necessary to maintain quality of life.[21,40-41] Patient motivation to engage is key and often reliant on personal goals. A recent systematic review recommends that tapering plans consider the context of a patient's life.[36] This study also suggests individualised pain management support should align with what matters to patients (TDF domain: Skills). This is likely to involve identifying a patient's current stage of change (pre-contemplation, contemplation, preparation, action, maintenance) and adapting the consultation accordingly.[42] However, our findings highlight pharmacists' tendency to consult in the action phase, which may explain why practitioners express more confidence consulting with patients who are ready to make an opioid reduction

(TDF domain: Beliefs about capabilities). Although pharmacists recognise the importance of working with pre-contemplative and contemplative patients to support them in progressing towards action, they also acknowledge further training may be needed to work confidently in these earlier stages.

Implications for practice

To the best of our knowledge this is the first study that focuses on practice pharmacist views on delivering a review for to support opioid deprescribing in UK primary care, where appropriate. This study identifies factors likely to influence how a review is delivered from the perspective of potential deliverers, a feature of intervention development not often reported. This is important when intervention effectiveness is dependent on effective use of relevant knowledge and skills of its deliverers and identifies important associated training needs to support pharmacist capability, opportunity and motivation (e.g., supporting pharmacists' confidence, coping with emotional burden, developing a therapeutic alliance for shared decision-making).

The pharmacist role in the primary care setting is relatively new and evolving[18] and a pharmacist-led review could help develop their position within the primary care workforce.[43-44] This study suggests delivery of a PROMPPT review aligns well with pharmacist expertise. Since this work was completed, pharmacists have played a significant role in delivering structured medication reviews (SMRs) for patients prescribed dependence forming medicines.[45] Guidance suggests SMRs provide individualised care involving shared decision-making. This study suggests additional training and resources are required to support pharmacist capability and motivation

in supporting patient-centred conversations especially in instances where patient resistance is perceived around deprescribing.

The facilitators and barriers to delivery of a PROMPPT review, as perceived by pharmacists in this study, correspond to key delivery features previously identified by patients and informed co-design of the intervention and associated training package ahead of a feasibility study.[21,26,28] A cluster randomised controlled trial is currently underway to evaluate the clinical and cost effectiveness of PROMPPT.[27]

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Ethical approval

Ethical approval for the Q-PROMPPT study was granted by the East of England – Cambridge East Research Ethics Committee (ref:19/EE/0151)

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Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request and if in line with participant consent for data use.

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