

# BMJ Open Patient and public perception and experience of community pharmacy services post-discharge in the UK: a rapid review and qualitative study

Sarah Khayyat,<sup>1</sup> Philippa Walters,<sup>2</sup> Cate Whittlesea,<sup>3</sup> Hamde Nazar <sup>2</sup>

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<sup>1</sup>Population Health Sciences Institute, Newcastle University, Newcastle, UK

<sup>2</sup>School of Pharmacy, Newcastle University, Newcastle, UK

<sup>3</sup>Research Department of Practice and Policy, UCL School of Pharmacy, University College London, London, UK

## Correspondence to

Dr Hamde Nazar;  
hamde.nazar@newcastle.ac.uk

## ABSTRACT

**Objectives** To investigate the perception and experience of patients and the public (PP) about community pharmacy (CP) services and other primary care services after hospital discharge back home.

**Design and setting** A rapid review and qualitative study exploring PP perceptions of primary care, focusing on CP services in the UK.

**Methods** A mixed-methods approach was adopted including a rapid review undertaken between 24 April and 8 May 2019 across four databases (MEDLINE, EMBASE, PsycINFO and CINAHL). Semistructured interviews were then conducted investigating for shifts in current PP perception, but also nuanced opinion pertaining to CP services. A convenience sampling technique was used through two online PP groups for recruitment. Thematic framework analysis was applied to interview transcripts.

**Participants** Any consenting adults ≥18 years old were invited regardless of their medical condition, and whether they had used post-discharge services or not.

**Results** Twenty-five studies met the inclusion criteria. Patients were generally supportive and satisfied with primary care services. However, some barriers to the use of these services included: resource limitations; poor communication between healthcare providers or between patient and healthcare providers; and patients' lack of awareness of available services. From the 11 interviewees, there was a lack of awareness of CP post-discharge services. Nevertheless, there was general appreciation of the benefit of CP services to patients, professionals and wider healthcare system. Potential barriers to uptake and use included: accessibility, resource availability, lack of awareness, and privacy and confidentiality issues related to information-sharing. Several participants felt the uptake of such services should be improved.

**Conclusion** There was alignment between the review and qualitative study about high patient acceptance, appreciation and satisfaction with primary care services post-discharge. Barriers to the use of CP post-discharge services identified from interviews resonated with the existing literature; this is despite developments in pharmacy practice in recent times towards clinical and public health services.

## Strengths and limitations of this study

- This study is strengthened by its integrated methodology in which the qualitative study was built and informed by a rapid review of existing literature.
- The study provides a cross-sectional view of key perspectives of patients and the public about community pharmacy post-discharge services; it illustrates the views of healthy individuals, carers and patients with/without long-term conditions.
- The qualitative study is potentially limited by the small number of interviewees, however, a range of strategies were adopted to verify saturation of data, themes and theory.
- Potential regional variations were not evaluated as all participants were from the North-East of England.
- The study did not consider the views of black and minority ethnic groups who may have different barriers to accessing services.

## INTRODUCTION

There is recognition among healthcare commissioners and providers about the value of involving patients and the public (PP) in decision-making, managing their long-term conditions (LTCs), enabling health services to deliver better health outcomes, and reducing pressures and costs for the National Health Service (NHS).<sup>1</sup> There is appreciation that patients can become 'experts' in living with their condition and, through collaboration with healthcare professionals, can play a role in the healthcare system as engaged agents to ensure that their own needs are appropriately met.<sup>2</sup> Therefore, the involvement of PP in service design is considered important in developing advanced and more personalised healthcare services. The value of their views is also recognised in the evaluation and optimisation of services.<sup>3-5</sup> Patient satisfaction of delivered services is an acknowledged parameter to measure when conducting service evaluation.<sup>6</sup> The Economic, Clinical, and Humanistic Outcomes model incorporates



patient satisfaction in the range of potential outcomes that can be measured when assessing effects of an intervention or service.<sup>7,8</sup> The model, used in health services research, highlights that service effectiveness can be investigated from various perspectives.<sup>7</sup>

There has been a sustained interest in transfer of care (ToC) services, from hospital to home, in the past 20 years.<sup>9,10</sup> The goals of these services are to improve quality and quantity of communication between health-care providers and provide out-of-hospital support and continuity of care (CoC) between primary and secondary care.<sup>9,10</sup> There are specific aims around medicines which include: ensuring that changes to medicines are followed up in community; improving patients' adherence with medicines especially for those starting new medicines; reducing medicines-related issues; and minimising any risk to patient safety especially for those who might experience an error or problem with their medicines following their hospital discharge.<sup>9,11,12</sup> Community pharmacists have been recognised as appropriate in delivering care to patients following discharge from hospital, such as providing a medicines use review (MUR) or new medicines service consultation post-discharge.<sup>13–17</sup> Recent systematic reviews report that pharmacist-led interventions allow medicines-related issues to be identified and rectified,<sup>13</sup> which can result in an associated reduction in 30-day hospital readmissions.<sup>18</sup> However, the evidence on the observed effects on 30-day readmissions was limited by heterogeneity in study design, analysis approach, degree of community pharmacist involvement and fidelity to the intended intervention.<sup>18</sup> There is also limited evidence on the economic and humanistic benefits of such services.

In February 2020, the Department of Health and Social Care in England announced a new ToC service, the Discharge Medicines Service (DMS), to be initiated later in 2020. When patients are discharged, hospitals will digitally refer them to their community pharmacy (CP) for additional support and follow-up care on their new medicines.<sup>19</sup> Although a range of previous ToC initiatives have been piloted or implemented in the UK,<sup>20–22</sup> there is little evidence on patient perspectives including their perceived value of such services. This means that the impact of patient perspectives on the success of the new DMS service cannot be readily anticipated and considered in the implementation of this new service. In addition, according to the British Medical Research Council (MRC) framework, understanding patient responses to and interaction with an intervention is important to identify mechanisms of impact of that intervention; which is one of the key components of a process evaluation.<sup>23</sup>

In this study, we aimed to address the paucity of evidence around patient perspective on post-discharge services (such as the new DMS). The study incorporated a rapid review of the current literature about PP perception/experience of related primary care services to inform a qualitative investigation with PP about their perceptions and experiences with a specific focus on CP post-discharge services in the UK (ie, services provided

to patients in a CP setting following their discharge from hospital).

## STUDY DESIGN

Integration of different forms of data can dramatically enhance the value of the research where different integration approaches can be implemented at the design, methods, and interpretation and reporting of the findings.<sup>24</sup> We have adopted an 'integration through building' approach where the results from one data collection procedure (rapid review) informed the data collection approach of the other qualitative investigation.<sup>24</sup>

## RAPID REVIEW

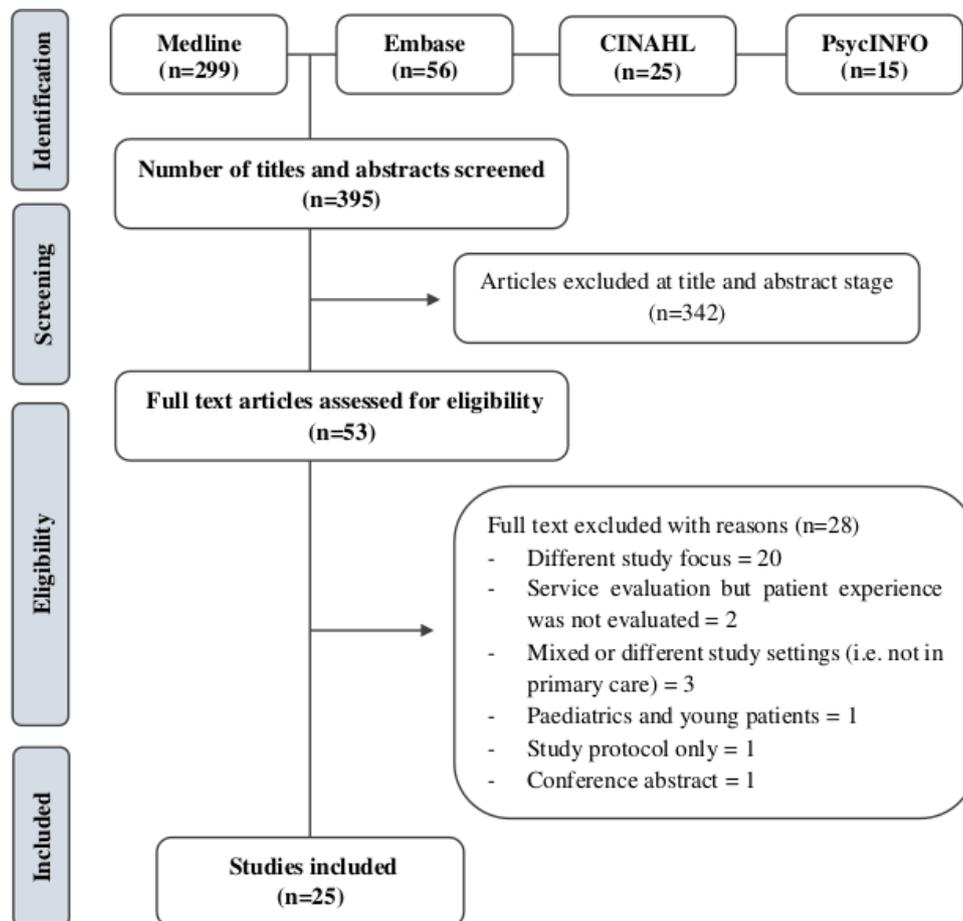
### Methods of the rapid review

The rapid review followed the systematic approach described in the Preferred Reporting Items for Systematic Reviews and Meta-analysis.<sup>25</sup> We intended to use this type of review to synthesise knowledge of the targeted research question with the use of search strategies that make it easier to identify relevant papers. Components of the systematic review process were simplified or omitted to produce an evidence base in a timely manner.<sup>26</sup> The full method used, including the search terms, is included in online supplemental file 1. In summary, the research question was focused on the perceptions and experiences of using primary care services by adult patients with LTCs in the UK. Adults with LTCs were chosen as they are considered to be the most prevalent users of primary care services and therefore have more extensive experience to report.

It was anticipated that very little empirical work existed specifically on CP post-discharge services, so this was widened to identify patient views on all primary care services that may be accessed after hospital discharge. It is recognised that healthcare systems vary worldwide, and this, with other factors such as culture and social norms, has an impact on the positioning of the patient in the system and subsequently their potential thoughts, feelings and perceptions of health and healthcare. Consequently, only studies conducted with patients in the UK were included in this review so findings could be more usefully related to the rollout of the DMS in England. One reviewer undertook the study selection and data extraction (SK); no risk of bias was undertaken. The search was conducted between 24 April and 8 May 2019 across four databases (MEDLINE-In-Process and Other Non-Indexed Citations, EMBASE, PsycINFO and CINAHL) for publications in English, and no publication date limit was considered.

### Results of the rapid review

The rapid review identified 25 studies which met the inclusion criteria from the 395 identified from initial search. An overview of the rapid review results is provided in [figure 1](#).



**Figure 1** PRISMA flow diagram for the studies identified for the rapid review. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-analysis.

A summary of eligible studies is provided in online supplemental file 2. The identified studies had four different aspects:

- ▶ Patients' perspectives on the support provided by pharmacists in a CP or general practice setting.<sup>27–30</sup>
- ▶ Patients' perspectives on the use of a telehealth/tele-care system.<sup>31–34</sup>
- ▶ Patients' perspectives on services provided by primary care teams to ensure CoC or ToC from a secondary to a primary care setting.<sup>2 3 35–41</sup>
- ▶ Patients' perspectives on other primary care services provided by nurses or general practitioners (GPs) in primary care.<sup>42–49</sup>

Generally, these studies evaluated participants' awareness, acceptance, or appreciation of, and satisfaction with, the delivered services. Some studies also explored patients' perspectives on the availability of resources in the primary care setting to ensure their CoC.<sup>2 27 37 38</sup>

Exploratory interviews and focus group approaches were commonly used to identify patients' perspectives of the services.<sup>2 3 27 42 44 46</sup> It was found that a qualitative study design helped not only in determining patients' level of acceptance, awareness of and satisfaction with the services delivered, but also in investigating barriers to, and facilitators for, using the services.<sup>2 3 36 38 40 42 48</sup>

In those studies where a pharmacist, either in a CP or GP practice setting, was involved in the service, patients reported good to high satisfaction with the services.<sup>28–30</sup> There was a report of low awareness of the services offered by community pharmacists<sup>27</sup> and a preference to see the GP when there was a deterioration in health.<sup>30</sup> Patients were found to be generally satisfied with telecare/telehealth<sup>31–34</sup> indicating the valuable potential for personalised digital care to help with self-management and problem solving.<sup>31 33 34</sup> Some studies captured patients' experience of poor ToC due to poor informational continuity,<sup>3 36–38</sup> and poor coordination of services.<sup>36–38</sup> Other authors identified several aspects that contributed to achieving good CoC such as: informational continuity, team continuity and relational continuity.<sup>3 41</sup> Patients were satisfied when they received joined-up care that was multi-professional and attributed that to one or more of those aspects aforementioned relating to continuity.<sup>2 35 39 40</sup>

## QUALITATIVE STUDY

### Methods of the qualitative study

To further investigate PP perception and experience around CP post-discharge care, semistructured face-to-face and telephone interviews were conducted with

patients and members of the public between mid-July and mid-August 2019. A constructive approach has been adopted that facilitates capturing the lived experiences and perceptions of participants.<sup>50</sup> This approach is inductive as it aims to develop an explanation or theory based on, and emerging from, the data, rather than a priori assumptions or theories. Therefore, knowledge is obtained by exploring and understanding the social world of the participants, and focusing on their views and interpretations.<sup>50</sup> The Consolidated criteria for Reporting Qualitative Research checklist<sup>51</sup> has been used to aid transparency in data collection, management and reporting (online supplemental file 3). All items are detailed within this study with the exception that repeat interviews were not conducted, and transcripts were not returned to participants for feedback or correction.

### Participant recruitment

A convenience sampling technique was used through two online research groups to recruit patients and members of the public: 'Diabetes UK' (the UK's leading diabetes charity) and 'Voice' (Newcastle University and UK government-funded research network of UK and international citizens). A recruitment invitation was published on the organisations' websites requesting volunteers to contact the researcher directly.

Participant inclusion criteria were: adults  $\geq 18$  years of age; able to communicate in English; able to provide informed consent to take part in the study; with no mental health problems and/or severe learning or hearing difficulties; based in the UK. To capture PP perception and experience, any member of the public who would benefit from CP post-discharge services was invited to contribute regardless of their medical condition (ie, if they have or have not any LTC). Participants were included in the study whether they had used CP post-discharge services or not; as this helped identify barriers for using such services. Those meeting all inclusion criteria were sent a formal email including a participant information sheet, consent form and demographic questionnaire. The participant information sheet defined the ToC from secondary to primary care settings, and explained potential CP services that patients might be offered/receive following their hospital discharge. Then, at the start of the interview, this definition was revisited to ensure participant's understanding of the meaning of CP post-discharge services.

### Data collection

A semistructured interview topic guide (online supplemental file 4) was developed based on (1) findings of the rapid review (ie, knowledge gaps and topics covered during interviewing PP about similar services), (2) discussion between the research team, and (3) findings from previous interviews undertaken with healthcare providers contributing to such services, as part of an ongoing wider project on post-discharge ToC (unpublished work). The topic guide, with open and prompting questions, looked to explore specific areas of PP awareness, acceptability,

experience and satisfaction of CP post-discharge services, and factors that helped or hindered them using such services. Participants were also encouraged to share further issues and thoughts not covered by the interview guide. Interviews were conducted in a private room at Newcastle University. Travel costs and refreshments were offered/paid for the participants.

A sampling matrix was used with the consideration of the type of participant (ie, healthy individual, carer or patients with/without LTC), gender and age of the participant. Participant recruitment continued until saturation had been achieved. Different models of saturation were considered at different levels of the research process.<sup>52</sup> 'Data saturation' occurred as no new themes were generated after the ninth interview. Two more interviews were conducted to confirm that no new themes were emerging. 'Theoretical saturation' occurred as all constructs that explored CP post-discharge services were fully discussed with participants and represented by the data. 'Inductive thematic saturation' was considered when there were no new themes/codes emerging in the process of analysis. Following informed consent, all interviews were audio-recorded and transcribed verbatim. Transcripts were managed and analysed with the use of NVivo V.12 (QSR International, Melbourne, Australia).

### Data analysis

Thematic framework analysis was used to analyse the data.<sup>50 53</sup> A combination of thematic inductive and deductive analysis was employed. The former allowed flexibility in themes, ideas and explanations to emerge naturally from the data, and the latter approach meant that there was specific interrogation for the predefined categories derived from the rapid review. The six stages of framework analysis were followed: data familiarisation; coding process; developing an initial thematic framework; applying the thematic framework; reviewing data extracts and developing a framework matrix; and data interpretation.<sup>50 53</sup> The initial coding process was conducted by SK, then, all authors discussed and checked the coding framework for accuracy and completeness. However, no inter-rater reliability was conducted.

Distinctive procedures were used as data analysis and collection proceeded; such as comparing and contrasting participants' responses with each other, memo writing and saturation. Searching for negative or deviant cases; frequent debriefing sessions; use of tactics to help ensure honesty in informants when contributing data; and providing a 'thick description' of fieldwork context were used to ensure the credibility and transferability of the findings.<sup>54 55</sup> The 'thick description' of the fieldwork context included descriptions of the setting, subjects, quotes, and other data around interpretation and synthesis to facilitate transferability to other contexts.<sup>56</sup> No patient and public involvement was conducted to inform the research design, conduct, reporting or dissemination.

**Table 1** Participants' characteristics

Variables	Groups	Number of participants (n=11)
Type of participant	Healthy individual	4
	Patient with LTCs (hypertension, asthma, osteoarthritis, epilepsy)	4
	Carer of patients with LTCs	1
	Patient with other medical condition (non-LTC)	2
Participant had or offered a CP service after any hospital discharge	Yes	0
	No	8
	Do not know/cannot remember	3
Age group	Mean (SD)	59 ( $\pm$ 18.6)
	18–24 years	1
	25–34 years	1
	35–44 years	0
	45–54 years	1
	55–65 years	3
	>65 years	5
Gender	Male	4
	Female	7
Ethnic group	White British	10
	White European	1
Marital status	Single	6
	Married	3
	Divorced/separated	1
	Widowed	1
Employment status	Public/government job	2
	Self-employed	1
	Retired	8
Highest education level	General Certificate of Secondary Education/O-levels	1
	A-level/National Vocational Qualification	3
	Diploma	1
	Degree	3
	Postgraduate	3

CP, community pharmacy; LTCs, long-term conditions.

### Results of the qualitative study

A total of 14 volunteers met the inclusion criteria, of whom 11 were interviewed. The other three participants offered their initial interest, but did not respond to further contact. The mean average length of the interviews was 47 $\pm$ 14 min. All interviewees were from the North-East of England (recruited via 'Voice'); there were no volunteers recruited from 'Diabetes UK' research group. Characteristics of interviewees are detailed in [table 1](#). Participants shared similar views on the use of CP post-discharge services regardless of their medical condition. The major

themes and subthemes are presented in [table 2](#) with illustrative quotes.

### Awareness of CP post-discharge services

There was a general lack of awareness on the availability of CP post-discharge services. Around half of the participants knew nothing, though others had heard of, or knew a little information about such services from their GP, community pharmacists, the media or through a previous experience of a family member. The analysis also revealed that participants were not fully aware of all available CP

**Table 2** Themes, subthemes and representative quotes from the thematic framework analysis of the data

Main themes	Subthemes	Representative quotes
Participants' awareness of CP post-discharge services	—	'I had never heard about it before until I was coming to see you.' (05P, with LTC) 'A lot of people think they are going to a pharmacy to pick up what they need and then just leave.' (01P, healthy individual) 'There is a lot of talk about the transfer of care when you get into a hospital when they are trying to get you out, and who is going to support you. I am aware that we have a trend which is underutilized at the minute, is the pharmacy.' (04P, carer)
Participants' appreciation of CP post-discharge services	—	'I think it is an excellent service. Because I remember in the past when my mother had a stroke and she was in the hospital for quite a long time, when she came out, there was no form of contact, even with the doctor. The aftercare, there was nothing. (...) They did call me, but that was for maybe a 10-minute talk, which is very kind of them to do this. I did say thank you very much for this because you have made me feel calmer and more confident.' (02P, with LTC)
Barriers to using CP post-discharge services	Barriers related to the healthcare system and the ToC process Barriers related to the accessibility and availability of the resources at the CP	'I am very happy that the pharmacy has as much information as they need about me, but obviously there is data protection. There is a confidentiality issue. (...) I would expect to receive a document emailed or paper from the pharmacy assuring me of confidentiality and data protection.' (07P, with non-LTC) 'Some very small villages do not have a pharmacy, but they do have a GP, (...) I think transport could be an issue for some people.' (07P, with non-LTC) 'The only downside is if people needed a one-to-one at home and that they cannot get to the place, and there is a time factor involved. Again, it is all down to manpower.' (05P, with LTC)
Recommendations for improvements	Barriers related to patients' understanding of CP discharge services Increasing awareness of CP post-discharge services Provide community pharmacists with an access to patients' medical records	There needs to be some kind of publicity. There is a lack of knowledge in relation to this kind of system. (...) I do not think people are aware of it.' (04P, carer) 'If people do not know about the service, they will not use it. Number one is information. Trying to get people informed, trying to get patients educated.' (08P, with non-LTC) 'If you could link the pharmacist's computer system into the National Health Service treatment that would be brilliant. (...) As long as you give the pharmacist the tools to do the job, give them the authority to listen to the story. Give them the authority to put stuff on the computer, on the medical records.' (06P, healthy individual)

CP, community pharmacy; GP, general practitioner; LTC, long-term condition; ToC, transfer of care.

services and that half of them believed that the community pharmacists' role was mainly for dispensing medication. It was believed that community pharmacists could provide face-to-face or telephone counselling and a medicine review. The other described CP services were the medicine home delivery, smoking cessation, alcohol consumption services, services related to sexually transmitted diseases, and those providing blood pressure checks and hearing tests.

### Appreciation of CP post-discharge services

Participants appreciated the concept of community pharmacy ToC services, and they would be willing to be referred to their CP if they needed post-discharge care. Participants believed that post-discharge services would provide many benefits for the healthcare system as well as for the discharged patients. A ToC service was appreciated as a form of communication between the hospitals and primary care (CPs and GPs), to inform about a patient's discharge and updated medication list. CP post-discharge services were also perceived to reduce pressure on hospitals and GP services as community pharmacists contributed to meeting healthcare demand. Participants articulated that such services had the potential to reduce the risk of errors around medicines which would have a patient safety and an economic value to the NHS. The benefits acknowledged for discharged patients included:

- ▶ Improved CoC following hospital discharge.
- ▶ Improved patient safety (as community pharmacists could monitor for any potential side effects or drug-related issue).
- ▶ Improved psychosocial support for the discharged patients.
- ▶ Improved medication adherence through follow-up advice and counselling about medicines.
- ▶ Reduced hospital readmissions through additional support in primary care.
- ▶ CPs provide an accessible, convenient location to access care.

### Barriers to using CP post-discharge services

Participants identified a range of potential barriers to the use of CP post-discharge services. These were related to (1) the healthcare system and the ToC process, (2) the accessibility and availability of the resources at CPs, and (3) the patients' understanding of CP post-discharge services. Examples of these barriers are provided in [table 3](#).

### Recommendations for improvements

There were two recommendations for improvement highlighted by participants to improve/increase the use of CP post-discharge services which were: to increase PP awareness of the available services, and also to provide community pharmacists with access to patients' medical records.

Participants agreed that all healthcare professionals should be involved in raising the awareness of the CP post-discharge services. In the hospital, it was suggested

the hospital staff (accident and emergency staff, doctors, nurses and pharmacy staff) should be involved in the discussion with the patient about post-discharge care. It was believed that consultants and other doctors in the hospital would play a major role in convincing patients about the benefits of CP post-discharge services.

In primary care, involving the GPs and advertising the service at general practices were suggested ways to increase the uptake of CP post-discharge services, especially as the patient-GP relationship was considered to be more widely established. Advertising the CP post-discharge service in the pharmacy itself was another option to raise awareness such that patients would know about post-discharge care prior to their hospital admission/discharge. Participants believed that all methods of communication with PP should be used in a comprehensive campaign, for example, email advertising; billboard marketing; press releases from local press and local authorities using the range of social media platforms, including information on the NHS website; and using traditional means of advertising such as posters and letterbox drops.

### DISCUSSION

This rapid review identified high rates of patient acceptance, appreciation and satisfaction with primary care services post-hospital discharge.<sup>28–34</sup> Patients believed that the service provided had improved their understanding of their treatment and disease condition.<sup>43 45</sup> The review also highlighted the public lack of awareness of the availability of services provided in a CP setting following discharge from hospital. Although patients articulated an appreciation for such services, several barriers were identified related to CoC during transition and utilisation of the primary care services. Some barriers were related to healthcare systems and service providers such as resource limitations (eg, the availability of enough staff and associated time pressure in the primary care setting)<sup>2 38</sup>; the lack of support or information/advice from the healthcare providers<sup>32 33</sup>; poor communication between healthcare providers or between patient and healthcare providers; poor coordination of transition of care between different healthcare settings<sup>3 36 38 40 41</sup> and difficulty in making an appointment with the GPs.<sup>38</sup> Other barriers to the use of primary care services, particularly CP services, were related to potential service users' beliefs and conditions such as: patients' lack of awareness of the available services or potential roles and capabilities of different healthcare providers in primary care<sup>27</sup>; complexity of patient's condition;<sup>28–30</sup> number of comorbidities and presence of LTCs.<sup>36 39 40</sup>

The qualitative study captured PP appreciation of potential community pharmacist post-discharge services as beneficial for patients and the wider healthcare system. This reinforces the findings from previous studies in which patients appreciated services provided by pharmacists either in a CP or GP practice setting.<sup>28–30</sup> Participants also related similar barriers and challenges to acceptance,

**Table 3** Barriers to using CP post-discharge services

Type of barriers	Examples	Representative quotes
Barriers related to the healthcare system and the ToC process	<ul style="list-style-type: none"> <li>▶ The different services provided locally which confuse patients about what is available</li> <li>▶ The lack of a national standard ToC service*</li> <li>▶ Privacy and confidentiality issues related to sharing information with the CP; as some patients see community pharmacists as non-healthcare professionals or because they feel their personal information is too sensitive to be shared with their CP</li> </ul>	<p>'We are bombarded with many new systems, and there is another system on top of another system. There is that much confusion.' (02P, with LTC)</p> <p>'It might have been operating in some areas for years, but it has not been operating in the areas where I have lived.' (07P, with no LTC)</p>
Barriers related to the accessibility and availability of the resources at the CP	<ul style="list-style-type: none"> <li>▶ Transport accessibility issues to the CP where patients are too ill or housebound</li> <li>▶ Some CPs are not accessible for the elderly or for patients with disabilities</li> <li>▶ Community pharmacists have time pressure and therefore unable to provide post-discharge care</li> <li>▶ Community pharmacists cannot provide home visits because of their shortage of staff</li> </ul>	<p>'Pharmacies that I have been out to, the local ones, they do not have ramps or disability access.' (01P, healthy individual)</p> <p>'There is very little time for pharmacists to communicate with the person.' (02P, with LTC)</p>
Barriers related to patients' understanding of CP post-discharge services	<ul style="list-style-type: none"> <li>▶ The lack of awareness of CP post-discharge services</li> <li>▶ The lack of appreciation of the benefits of CP post-discharge services, for example, some participants believed that CPs do not provide cognitive services/advices; access of care from other healthcare professionals was preferred such as GPs, practice nurses or the hospital doctor</li> <li>▶ Patients' low acceptability of seeing a community pharmacist post-discharge may be due to a long hospital stay so they do not want any additional care, or they would be reluctant to change from seeing their GPs as the first port-of-call, or they do not have trust/good relationship with their community pharmacists</li> <li>▶ Patients perceive that community pharmacists have no knowledge of the patient's medical history and no full access to the medical records; therefore, they might not provide the required support to hospital-discharged patients</li> </ul>	<p>'There is still a massive gap in terms of understanding what the community pharmacist can do. Many people think of it as just a chemist's shop.' (04P, carer)</p> <p>'Diabetes affects people in different ways. It would be wrong to expect the pharmacist to be fully aware of exactly how diabetes affects that person.' (10P, with LTC)</p> <p>'Older people might find it difficult not to see their GP whom they know, like, and trust. They might feel cast off and just castaway to go and see the pharmacist instead.' (07P, with no LTC)</p>

\*At the time of conducting the interviews, there was no national standard ToC service. However, DMS will be an essential national service for hospital-discharged patients on a new medicine.

CP, community pharmacy; DMS, Discharge Medicines Service; GP, general practitioner; LTC, long-term condition; ToC, transfer of care.

uptake and awareness of such services as those previously identified in the review. Indeed, these also resonate with the behavioural constraints around public awareness and expectations of CP identified in a recent Community Pharmacy Clinical Service Review undertaken by the King's Fund.<sup>57</sup> Public perception and experience, and variation in services that CPs offer were listed as barriers to the wider provision of clinical services more generally through CP. Suggested solutions to address these were raising public awareness and the deployment of specific marketing campaigns. A recent study by Lam *et al* found that from the 100 inpatients informed about the opportunity for a discharge MUR with their community pharmacist post-discharge, only 5 actually took up this service and 78 stated that they had no intention to access this care.

The most common reasons were: their lack of perceived need for support with their medicines; their default reliance on the care provided by their doctors; or reduced capacity to self-present at the pharmacy due to their morbidity or limited mobility. Authors recommended the need for developing and consolidating the relationships between patients and their community pharmacists rather than marketing the specific services that can be offered. In this way, patients would benefit from a perceived sense of relational continuity which they have reported feeling from accessing care from their GPs.<sup>58</sup> Another significant enabler would be the trust in, and promotion of CP services by other healthcare providers. The same review by the King's Fund identifies a lack of awareness by other healthcare providers of the contribution that community

pharmacists can make, meaning that these stakeholders do not actively support uptake and acceptance of CP services.<sup>57</sup> Ferguson *et al* also reported low engagement of hospital pharmacy staff promoting and offering CP post-discharge care to inpatients, due to their lack of understanding and appreciation of the potential benefit to patients of a CP intervention.<sup>21</sup>

This recent contribution to the understanding of how PP perceive primary care and CP services post-discharge, from both the literature and the qualitative study, bears significance on the potential uptake and success of the proposed national DMS. The interviews have shown that there are still some barriers related to the uptake of CP services, despite recent advancements in service provision in CP in England. Therefore, there is an emphasis on the need to involve different healthcare professionals from different settings to raise PP awareness of the value of CP skills and roles and provision of post-discharge services such as the new DMS. A recent realist synthesis highlighted how PP trust in hospital staff making referrals and coordinating post-discharge care, and the experience and attitudes of PP towards CP impact the willingness and uptake of CP services.<sup>59</sup>

There are many theoretical frameworks and conceptual models that can further our understanding of potential success of a new service implementation and adoption. Rogers offers one such conceptual model, which is that of Diffusion of Innovations.<sup>60</sup> In this model, it is stipulated that there must be sufficient knowledge of the 'decision-making unit' (ie, the patient) to develop strategies of persuading engagement with the innovation (ie, the CP post-discharge services). The model also highlights a number of factors which govern the adoption process of an intervention. The 'relative advantage' of the intervention over other practices is one of the important factors. If patients do not appreciate the value or 'relative advantage' of the intervention, they are unlikely to engage and make a decision to adopt that intervention. According to the MRC framework, service designers, commissioners and policymakers need to identify contextual factors that should be addressed alongside the implementation and delivery of any intervention within a system.<sup>23</sup> Otherwise, they risk the outcomes and ultimately success of that intervention. Rogers refers to poor implementation and adoption of a service as 'discontinuance', which is attributed to a range of factors. This includes: an individual decision to replace the adopted service by a better one; the misuse of a service which could have been beneficial for individuals if it had been used in the right way or dissatisfaction with the service performance. Service user's dissatisfaction might not be related to the quality of the service itself, but because the service was inappropriate for that individual and did not provide an adequate level of perceived relative advantage over alternative practices.<sup>60</sup> Hence, discontinuance of a new service is an indication that the service might not have been appropriately implemented and normalised into service users' behaviours and health choices. In addition, a high rate of discontinuance is more

likely when the service is less compatible with an individual's beliefs and past experiences.<sup>60</sup> Therefore, based on Rogers's theory,<sup>60</sup> service designers and implementers need to understand the wider beliefs/past experiences of PP with CP services, that is, lack of awareness and buy-in, and identify mechanisms, for example, ensuring services are recommended/initiated by healthcare professionals who are already entrusted by patients, to enhance the perceived relative advantage towards driving engagement and uptake. Regular monitoring and evaluations of the service's progress, providers' performance and patient satisfaction alongside service performance will best allow ongoing identification of challenges. These can be targeted and addressed to not only support sustainability of that service, but will also contribute to incremental change in PP perception over time. Previous recommendations around public awareness campaigns, and more sustainably, reinforcing the relationships between community pharmacists and the public, remain pertinent to overcome challenges that threaten the success and potential outcomes of both the DMS and other potential new clinical services in a CP setting. These recommendations, in addition to the factors identified in the Rogers conceptual model<sup>60</sup> and MRC guidelines<sup>23</sup> about the need to identify patient perspectives of any new service, would fundamentally apply in any international context where a new service is being proposed.

The study had a number of limitations. First, only one data abstractor and coder conducted the rapid review, and no risk of bias was undertaken. This is in line with the abridged nature of rapid reviews compared with those undertaken systematically. Second, the qualitative study is potentially limited by the small number of interviewees. However, a range of strategies were adopted to verify saturation of data, themes and theory. Third, potential regional variations in PP perspective of CP post-discharge services were not evaluated. All participants were from the North-East of England, even though we used a national research PP support group to recruit participants. Lastly, the study did not consider the views/experiences of black and minority ethnic groups who are generally under-represented in their use of healthcare services. This is an important consideration in any service evaluation as they may have different barriers to accessing services such as language difficulties, and differing expectations, cultural and social norms that may affect how they seek out and engage with healthcare services. Overall, it is believed that transferability in this study is achieved as we sufficiently described the context of the fieldwork so that readers can evaluate the extent to which the study findings and conclusions are transferable to their settings, situations, people and times.

## CONCLUSION

The review identified high rates of patients' acceptance, appreciation and satisfaction with primary care services post-discharge. These positive perceptions were

confirmed by the subsequent qualitative study. A number of barriers to the use of CP post-discharge services were also identified from PP interviews which were similar to those identified from the review; there was no difference in patient perception of such services despite contemporary developments in CP practice. In general, participants appreciated potential CP post-discharge services as beneficial for patients and the wider healthcare system. However, awareness of CP services remains limited which will threaten the subsequent uptake and engagement of PP. Further research should establish the effectiveness of CP post-discharge services on patient's clinical/non-clinical outcomes as this will further evidence the value of such interventions to other healthcare professionals and PP. Also, determining other stakeholders' views (eg, service leaders, hospital pharmacy staff and community pharmacists) would identify if further levers in the system could be influenced to drive PP trust and engagement.

**Twitter** Hamde Nazar @NazarHamde

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**ORCID iD**

Hamde Nazar <http://orcid.org/0000-0002-3168-5386>

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