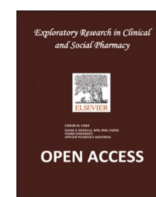
Exploratory Research in Clinical and Social Pharmacy 12 (2023) 100344

Contents lists available at ScienceDirect

Exploratory Research in Clinical and Social Pharmacy

journal homepage: www.elsevier.com/locate/rcsop



Community pharmacy services during the COVID-19 pandemic: Insights from providers and policy makers

Harriet Warr, Ankesh Gandhi, Syed Hussain, Daniel Greenwood [*,1]

School of Medicine, Anglia Ruskin University, Chelmsford, CM1 1SQ, United Kingdom

A R T I C L E I N F O

Keywords:
Community pharmacy
Pandemic preparedness
COVID-19
Pharmacy services
Pharmacy funding
Prescribing guidelines

A B S T R A C T

Background: Readily accessible to the public, community pharmacies (CPs) were placed under increased pressure during the COVID-19 pandemic. In England, dispensing volume increased by 25% between February and March 2020. This followed a decade of stagnant government funding, which has been attributed to CP closures. If another pandemic emerged, the reduced number of CPs may face increased pressures.
Objective: To explore CP service provision in England throughout the COVID-19 pandemic from the perspectives of providers and policy makers, including what can be learned in preparation for any future pandemic.
Methods: CP providers ($n = 10$) and policy makers ($n = 6$) were interviewed via telephone between June and September 2021. Interviews were transcribed and then analysed thematically using NVivo.
Results: Pandemic specific pressures were identified, as well as long-term issues which preceded the pandemic. Increased workload was recognised by both providers and policy makers due to changes in prescribing habits and was exacerbated by staff shortages. CP staff safety was a major concern, with limited personal protective equipment provided despite being open to the public. General Practitioner (GP) surgeries received more protective equipment than CP and still referred patients to pharmacy e.g., for a blood pressure check.
Conclusions: The pandemic re-confirmed CPs role of providing accessible healthcare, particularly medicines provision, but also highlighted the demand for in-person clinical services. Improved communication channels between CP and GP surgeries are required, as is pandemic prescribing guidance to ensure appropriate prescribing to safeguard the medicines supply chain. To ensure the health of all providers is fairly protected, activities which require in-person contact or can be undertaken remotely by CP, GP surgeries and other providers should be reviewed. For pandemic preparation, legislative changes are required which empower pharmacy to fully contribute to patient care. A review of pharmacy funding and staffing is also needed to ensure services are sustainable.

1. Introduction

The COVID-19 pandemic placed increased pressure on health systems worldwide. Readily accessible to the public, community pharmacies (CPs) were at the forefront of the pandemic response. A recent review of CPs global pandemic response identified 31 interventions (e.g., point-of-care antigen testing and vaccinations).[1] Some interventions included legislation changes which expanded pharmacists' responsibility.[1,2] The provision of CP services in England also changed due to the demands of the pandemic. Between February and March 2020, dispensing volume increased by 25% which resulted in longer work hours for staff and impacted their mental health.[3] Increased dispensing has been attributed to various factors, including changes in general practitioner (GP) prescribing habits and patient stockpiling.[4] As well as dispensing more prescriptions, CPs also supported the pandemic response through implementation of COVID-19 secure measures, test provision, and eventually vaccinations.[2,5,6]

Rapid changes to NHS services during the pandemic were directed by central government (e.g., NHS England), for implementation by local providers (e.g., hospitals and community services[7]). This was a move away from the 'peacetime' NHS model, where service delivery is devolved to local providers, to a 'wartime' model, where accountability and justification for decisions are switched to central government.[7] Atkinson and colleagues (2022) found these changes created 'central-

* Corresponding author.
E-mail address: dan.greenwood@leicester.ac.uk (D. Greenwood).
[1] Present address: School of Healthcare, University of Leicester, Leicester, LE2 7TG, United Kingdom

https://doi.org/10.1016/j.rcsop.2023.100344
Received 4 September 2023; Received in revised form 1 October 2023; Accepted 3 October 2023
Available online 5 October 2023
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local' tensions, for example, public health clinicians felt that local rather than centralised COVID-19 test and trace services could have been delivered with greater efficacy.[8] Specific to CP, service changes were also directed by government officials at NHS England, including a funded prescription delivery service and flexible opening hours.[9,10] Guidance was also rapidly forthcoming from national pharmacy associations,[1] including Community Pharmacy England (*CP contract negotiator)* that advised on service changes, including data reporting and service provision.[11] To date, there has been no investigation of the experiences of CP policy makers during the pandemic, including their relationship and agreement/disagreement with providers.

For CP, the pandemic followed over a decade of changes to contractual frameworks, including remuneration. Over this period, there has been a general move to reduce payment for dispensing with funds re-allocated for the provision of advanced services such as the 'New Medicines Service' (NMS), where CPs follow-up patients who have been prescribed new medicines. Despite inflationary pressures, overall funding for CP has remained constant, although a 12% annual increase was confirmed in 2023 for CPs to prescribe for minor ailments.[12] General long-term stagnant funding has caused financial pressures for the sector which has led to CP closures.[13] During the first year of the pandemic (2020/21), the rate of permanent CP closures increased, with a net loss of 213 (1.83%) versus 16 in 2015/16 (0.13%).[14,15]. With implications for care equitability, closures are also more likely in deprived areas versus affluent areas (41% versus 9%).[14] If another pandemic were to emerge, such closures could place even greater pressure on the remaining CPs, with potential impacts on patient care.

Although the World Health Organisation has declared COVID-19 is no longer a global health emergency,[16] another pandemic – whether coronavirus or another pathogen – is likely.[17] To ensure CP preparation for a future pandemic, the experiences of providers and policy makers require investigation to inform policy changes and enable central-local collaboration.

The objective of this study was to explore CP service provision in England throughout the COVID-19 pandemic from the perspectives of providers and policy makers, including what can be learned in preparation for any future pandemic.

2. Methods

CP providers (defined as pharmacy owners [contractors], pharmacists, pharmacy technicians or other support staff) and policy makers were interviewed as to their experiences of CP in England during the pandemic (COREQ checklist; Supplementary Material S1). Semi-structured and by telephone, interviews took place between June and September 2021 and were audio recorded. Participants and interviewers were either at home or in their workplace. As some participants were known to author DG, authors HW, AG and SH (medical students) conducted all but two interviews and were trained by DG (Associate Professor, PhD) in interview technique. Only the interviewer and participant were present, with no dropouts or repeat interviews. Interviewers introduced themselves at the start of interviews, including their role, and no field notes were taken.

Interview topic guides were developed for each participant group (Supplementary Material S2, Supplementary Material S3), both of which explored similar topics. Question development was informed by the literature and grey literature to further explore recent topics. Topic guides were piloted by a potential participant, with questions and interview structure discussed, including potential omissions with revisions made accordingly.

For recruitment, all CPs in Cumbria (rural), Greater Manchester (city) and Essex (mixed) were e-mailed with any staff members invited to join the study. These regions were purposively chosen for geographical differences, and differences in CP provision.[18] The study was also advertised on Twitter® and Facebook®, meaning non-participation was not measured. Those eligible had worked in one or more CP for at least 15 h per week since 1st March 2020. For policy maker recruitment, DG distributed an e-mail invitation to those in his professional network with snowballing used. Those eligible for study participation developed and/or implemented CP policy or guidance during the pandemic.

Interviews were transcribed by authors HW, AG or SH, and coded and collated into broader themes by DG (providers) and HW (policy makers) using NVivo Version 13. No a priori themes were used for coding, instead developed de novo. Transcripts were not returned to participants for comment or correction. A constant comparison approach was taken, whereby previous transcripts were re-reviewed as new themes emerged. Data were not second coded, so inter-coder reliability was not checked, but all thematic frameworks were reviewed and checked against transcripts by DG who synthesised the narrative and discussion to draft the manuscript, which was then reviewed by HW and AG. Participants were not asked for feedback on study findings.

2.1. Ethical approval

The study was approved by ARU ethics committee, approval ID: ETH2122–2102.

3. Results

Ten providers and six policy makers were interviewed (Table 1). On average, interviews lasted approximately 40 min. Thematic saturation was achieved for providers, but not for policy makers (likely as they were fewer in number). Themes developed from provider interviews are given in Fig. 1, and policy maker interviews in Fig. 2.

3.1. Community pharmacy providers

3.1.1. Workload pressures

Providers described a substantial increase in workload during the pandemic. One reason given was an increase in prescription volume, with Provider 7 (P7) describing how General Practitioners *"…did every prescription on their books so that patients wouldn't have to come back to them"*. Another factor perceived to increase workload was reduced access to in-person GP appointments: *"…we don't want to use the phrase 'closed their doors', but… we had a massive increase in people wanting our*

Table 1
Participant demographics (P=providers; PMs=policy makers).

Demographic	Participant group	
	Ps ($n = 10$)	PMs ($n = 6$)
Age (years)		
20–29	3	–
30–39	3	–
40–49	1	2
50–59	1	3
60–69	2	–
70–79	–	–
Unknown	–	1
Location		
Cumbria	3	–
Essex	6	–
Greater Manchester	1	–
England-wide	–	6
Years of experience in sector		
0–4	1	1
5–9	4	2
10–14	1	-
15–19	–	1
20–24	–	1
25–29	1	–
30–34	1	–
35–40	2	1
Unknown	–	–

Fig. 1. Themes from interviews with community pharmacy providers.

Fig. 2. Themes from interviews with policy makers.

services because we were the only people accessible really" (P5). A lack of GP access also pushed pharmacists outside of their competence: *"…people [were] showing us things which we just weren't supposed to be looking at, and we were well outside our capabilities while trying to deal with prescriptions. It was mayhem… it was hell"* (P7). Another pressure was advising patients about COVID-19 via phone: *"…there was a lot of concern about COVID and symptoms… which means I don't have time to be checking prescriptions off like I would normally do"* (P10).

Workload pressures were confounded by staff shortages, due to staff isolating due to COVID-19 infection (short term) or underlying health conditions (long term). Staff shortages were also thought to be the result of reduced funding for CP since 2016. As well as staff shortages, medicines – both prescription and for purchase – were difficult to source which added to workload.

Reduced commercial pressures from management helped ease work pressures: *"…[we were] not being put under as much pressure by management to achieve targets"* (P2). Similar to their view of GPs not seeing patients in-person, P7 described how pharmacy company head offices also *"…shut their offices and went home"* and so it was difficult to get hold of anyone for support.

Increased workload impacted the physical and mental health of the CP team: *"…it felt like all we could think about was work, um, yeah it did make me feel very anxious, like I couldn't switch off at night, couldn't get to sleep properly"* (P1). While acknowledging the huge mental health toll of the pandemic on colleagues, P7 felt that *"…most pharmacists dealt with it pretty well"*.

3.1.2. Services

Providers mentioned at least 15 services beyond dispensing which were impacted by COVID-19 in both demand and the ability to provide them. Urinary Tract Infection test and treat services were more sought after, attributed to a decrease in GP access due to their workload: *"… because GP services are so stretched… pharmacies can help by providing additional clinical services"* (P10).

NMS provision declined throughout COVID-19 as *"GPs weren't seeing patients to issue them with new medicines… things like blood pressure meds, diabetes, asthma"* (P7). Despite this, P2 tried to provide as many NMS' as they could, but sometimes needed to undertake additional unpaid reviews as patients were not reviewed by the GP as they would ordinarily have been.

Introduced in 2019, just prior to the pandemic, the Community Pharmacy Consultation Service (where CP is paid to issue medicines without a prescription in an emergency) was thought an important funded service to increase patient access to healthcare and reduce GP workload going forward: *"…[in future] it will [grow] because there's a lot of cases where patients did not need to see their GP and it could have been dealt with by the pharmacist"* (P9).

The pandemic involved COVID-19 specific services and procedural changes. Pandemic specific services included provision of lateral flow testing kits: *"…we have given out an average 300 [testing kits] a week"* (P6). Despite a desire to, no providers interviewed were commissioned by the NHS to administer COVID-19 vaccines. New Standard Operating Procedures (SOPs) were also introduced, and with time and once understanding of COVID-19 grew, new ways of working became embedded. The government's decision to permit CPs to close to the public for two hours per day was thought helpful, enabling teams to catch-up on non-patient facing work such as checking repeat prescriptions. Another strategy described was daily 'huddles', where the CP team could dedicate time to communicate with each-other and discuss policy or practice changes introduced by their company or NHS.

3.1.3. Patient interaction

Many patients were still consulted in person (e.g., for rashes which required assessment), often across the pharmacy counter which caused privacy issues. Consultation rooms were sometimes used if privacy was paramount, but were often unusable due to being small spaces which prevented distancing. Phone consultations were used to manage workload, including to triage which patients needed to visit CP in-person, but prevented assessment of body-language, which can aid information gathering during a consultation. Another communication barrier was PPE, for example: *"…mask wearing has been difficult to communicate with people and check their understanding"* (P1). Hearing through Perspex barriers was also an issue: *"…they can't hear me, I can't hear them… and there's confidentiality [issues] as well as there's lots of people [in the pharmacy]"* (P6). One provider described implementing a private remote GP service, where patients took their own observations during a video

consultation, supported by the pharmacist.

Patients responded to safety measures differently (e.g., for a one-way walking system) *"…some would complain that we were being too strict, some would complain that we were not being strict enough"* (P2). Helping to appease patient expectations and manage workload, text messaging services were used more during the pandemic to update patients on their prescriptions.

3.1.4. Safety measures

At the start of the pandemic, CPs felt betrayed by their employers and government as they *"…didn't have access to NHS [PPE] supplies, because they [NHS] felt we weren't in the front-line enough to warrant the use of masks, and we had to buy our own"* (P10). For P7, this was felt due to senior government and NHS pharmacists *"…completely misunderstanding what we do, and that continued throughout the pandemic"*. Concerns were also raised as to why it was okay for CPs to measure patient's blood pressure, but not for GP surgeries: *"…if they felt it was too risky for them, well, why is it safe for us to do it?"* (P10).

Despite feelings of betrayal and a lack of recognition, participants described their pride in CP staff for continuing to provide a crucial service and saw it as their professional duty. This was often at risk to their own and family's health: *"I was worried about catching COVID and taking it home to my family who were properly isolating…I was going out every day and dealing with the public… it was very scary"* (P1).

3.1.5. Education opportunities

Education and training opportunities continued, including comprehensive qualifications (e.g., diplomas), but also short courses for specific CP services and COVID-19 training. Undertaking a distance learning postgraduate diploma, P2 felt their learning was unaffected as they did not attend teaching in person prior to the pandemic. Conversely, P4 questioned whether to continue their dispensing qualification due to work and time demands. This led them to fall behind with training but became easier once the initial pandemic rush had subsided. Although useful, COVID-19 specific training was sometimes thought less relevant, such as learning about new treatments only used in hospitals.

Other training events, for example those hosted by pharmaceutical companies, were offered in greater quantity during the pandemic but were instead delivered virtually (i.e., webinars rather than seminars). Online delivery was thought beneficial and timesaving, for example *"…there's nothing worse for me in an evening than going to a meeting, and driving there after a day's work… I think they'll get a lot more people doing them now [via virtual platforms]"* (P6).

3.1.6. Relationships with other healthcare providers

Relationships with GP surgeries, dental surgeries and broader Primary Care Networks (PCNs; integrated primary and social care providers in a particular locality), were mentioned. Having to use standard GP surgery patient phonelines meant CP teams struggled to discuss patients and raise queries. P7 described how, particularly in the first lock down (March to July 2020), *"…there wasn't anyone to talk to… most GPs won't talk to a pharmacist full stop – at best we get to pass messages"*. They described how this was worse during COVID-19 as most GPs, and similarly dentists, weren't in their surgery. Similarly, P4 described how *"…we mostly try not to talk to any [GP] surgeries because they are very, um, kind of dismissive and can actually be a little aggressive"*. A specific example, when trying to request prescriptions on behalf of patients who lacked the ability to do so, CPs were told that patients must make the order. As well as refuse prescription requests, P8 described how GP surgeries refused to act on urgent patient referrals, asking that patients phone themselves. This was felt a criticism of their clinical acumen: *"I would really love a situation where our clinical knowledge is respected to a greater extent"* (P8). In contrast, P1 described how referrals were acted on due to increased trust between CP and GPs.

Another positive, providers often described how NHS e-mail was used more during COVID-19 to enable more efficient communication between CP and GPs, often superseding facsimile machines. Also regarding efficiency, new local, bespoke arrangements were described to expedite medicines supply. For example, P6 made an arrangement with a nearby dental surgery whereby the dentist could e-mail prescriptions for antibiotics directly to CP for supply, as patients were not seen in person.

Efforts to engage with PCNs were mentioned by several participants, including P5 who described how PCNs have improved communication between CP and other health providers. They were able to communicate directly with PCN clinical directors about which CPs were temporarily closing, had a prescriber, and could contribute to COVID-19 vaccination rollout. Despite these positives, P7 was critical of GP led PCNs:

> *"GPs do not want community pharmacy involved in [the] care of patients…whether it is an economic thing, because there is serious competition… or whether it is professional distain I don't know… but the barriers need breaking down before pharmacy, well before the PCN can really function… there's a strangle hold on it by GPs, and they don't let it go"*.

3.2. Policy makers

3.2.1. Working throughout the pandemic

Policy makers described making rapid decisions to protect staff and maintain high quality services, which required working 24/7. This was further confounded by the government failing to recognise the work of CP teams and a lack of support. Despite these negatives, policy makers felt that overall relationships within CP, with other professions and government were strengthened, in part attributed to increased communication. Relationships between CP and GP surgeries were thought to be *"…much more positive than [they] had been in the past"* (Policy Maker 4; PM4), but difficulties in contacting surgeries were highlighted such as no direct phoneline. A lack of timely input from GPs meant that pharmacists had to *"…make some tough decisions around patient care and dispensing, and what was in the best interest of the patient"* (PM6).

Another positive, commissioners were more receptive to service and contractual changes e.g., opening hours and funded delivery services due to the unique challenges of the pandemic: *"…we're all swimming in the same direction, you were finding very little red tape and very little opposition to making very pragmatic and positive changes to solve solutions"* (PM1).

3.2.2. Safety measures

It was felt that CP teams were not tested for COVID-19 as quickly or routinely as they should have been, nor provided with adequate PPE, especially at the start of the pandemic. One reason given was that other frontline NHS staff were prioritised due to CP being seen as *"…outside of the NHS"* (PM4). An initial lack of patient social distancing posed a risk to CP staff, thought due to *"…no national support to educate patients not to enter a pharmacy if they had COVID-19 symptoms"* (PM5). Staff were also often unable to social distance as *"…some pharmacies are probably two metres themselves"* (PM4). In general, the COVID-19 vaccination programme was viewed positively, although it was felt CP could have been more readily utilised.

3.2.3. Service provision

PM5 believed CP should have been given greater flexibility to make decisions about their opening hours: *"…if surgeries can do this, you know, all day every day, why can't we do it for an hour?"* (PM5). Similarly, flexible CP staff supervision would have been helpful, as to remain open there needs to be a pharmacist present, something not required by other providers such as surgeries and care homes. A proposed solution was to upskill CP teams, enabling pharmacists to be more patient facing rather than watching over their staff all day.

3.2.4. Service viability

Medicines shortages at the start of the pandemic compromised patient supply, thought due to increased prescription volume and panic buying. As time went on, this was alleviated and supply became constant, helped by 'Serious Shortage Protocols' which meant pharmacists could independently substitute prescribed medicines. Policy makers also worked with local clinical teams to reduce the period of prescribing from 84 days to 28 days to protect the supply chain, which also helped alleviate financial pressures. Another financial pressure, PM5 described how CPs were providing many consultations for people without paid referrals which amounted to doing a *"…consultation that you're not getting paid for"*. Increased use of locum (temporary staff) and their pay was another financial burden, with employed staff often working extra hours instead, contributing to burnout. A further financial issue was competition between CP and GP surgeries for COVID-19 vaccination contracts, which was also attributed to poor provider integration.

3.2.5. Post-pandemic CP and future preparedness

During the pandemic, the profile of CP was thought *"…understandably and correctly raised"* (PM6), with the sector's critical contribution to health and social care recognised. As many surgeries closed their doors to in-person appointments, there was a 'pharmacy first approach' which demonstrated how CP should be considered a *"…joint choice with surgeries in providing more services"* (PM2). To do so, increased government funding would be necessary, and *"GPs have to embrace"* (PM2) the change which would free up their time to focus on patients only they can care for. More broadly, experiences of the pandemic were considered an opportunity to develop CP or *"…[left] dormant in case needed again"* (PM1).

The digitalisation of CP provision, such as electronic prescriptions and virtual consultations, were mostly viewed positively, with the latter thought more efficient than in-person consultations, although *"…there is something about a human interaction physically that you can't repeat through this sort of medium"* (PM2). Looking ahead, further investment in CP IT infrastructure, including patient record access, was thought helpful to enable holistic interventions and better integration with secondary care.

For policy makers, efforts to prepare for a future pandemic focused on stock piling medicines, quick mobilisation of services and improved communication between CP teams. The role of 'hub-and-spoke dispensing' (i.e., warehouse led dispensing separated from supply through CPs), was thought by PM2 to be a more efficient approach moving forward. For PM3, the liberation of pharmacists to modify prescriptions was felt important: *"We need to give the profession back to the pharmacists; it's been taken away"*. Perhaps surmising the future of CP post-pandemic, is the sector mostly about *"…driving the most efficient and cost-effective activity"*, or is it about *"…adding value to the community"* (PM1)?

4. Discussion

Through interviews with providers and policy makers, many common themes emerged, such as increased workload and communication issues. However, views of working relationships with GP surgeries differed between the groups. More general, although COVID-19 specific pressures and changes were often highlighted by participants, many described long-term issues which preceded the pandemic. Changes were seen as an opportunity to develop CP, or to be left dormant if needed in a future pandemic.

Increased CP workload was recognised by both providers and policy makers, especially at the start of the pandemic. In agreement with previous studies, this was largely attributed to increased dispensing volume as a result of 'panic' prescribing by GP surgeries.[4] Prescribing increased quantities was also thought to contribute to medicines shortages, which also added to provider workload. For future pandemic preparedness, guidance should be developed and implemented to manage prescriber habits as well as supply chain resilience. Given that inhalers were thought to be overprescribed as COVID-19 is a respiratory infection, prescribing guidance should be developed for different pathogens and transmission methods (e.g., respiratory, gastrointestinal et cetera). National medicines stockpiling could also be considered, particularly for medicines predicted to be in high-demand for different types of pandemic infection. Given that pandemics are a global public health issue, recommendations for prescribing guidance and medicines stockpiling are internationally relevant.

Staff shortages also exacerbated workload, with regular staff working longer hours instead which contributed to burnout. Shortages have continued beyond the pandemic, with current pharmacist vacancy rates of 16% and pharmacy technicians 20%.[19] One reason being that CP professionals are choosing to work in other sectors, particularly GP surgeries which receive government funding to employ pharmacists and technicians, and often support enhanced training such as independent prescribing.[20] Published in July 2023, the NHS Workforce Plan aims to increase pharmacy degree training places by 50% by 2031/32,[21] but there is no guarantee they will work in CP. To ensure sustainable CP staffing, the appeal of working in the sector should be increased. Seen as helpful to manage workload, one approach could be to continue or improve flexible opening times which were implemented during the pandemic. Other approaches could be to ensure protected learning time, reduce commercial pressures, provider mental health support, and ensure policy makers understand patient-facing practice in CP which in turn may reduce any central-local tensions.[22] As burnout amongst pharmacists is an international issue, often due to long work hours and high workload,[23] some of these recommendations may also be relevant to other countries.

Although the potential for CP service expansion to increase accessibility was highlighted by both participant groups, the pandemic prevented this due to workload, staffing and financial pressures. Other long-standing issues, a lack of access to patient records, physical space, and poor recognition of pharmacists clinical ability were also thought to prevent service expansion. Already well evidenced,[24–27] CP service expansion can reduce GP workload yet progress has been slow.[13] One example, the Community Pharmacy Consultation Service was recognised as a useful addition, but CPs were still consulting patients without remuneration – something also identified by Allinson and colleagues (2022).[4] Attributed to poor GP access, unpaid NMS reviews were also undertaken during the pandemic. An expectation to provide services without payment is inherently unsustainable and something which is not undertaken by GP surgeries.[28] Poor financial sustainability has also increased the rate of CP closures, which reduces patient access and disproportionately so in lower socioeconomic areas.[14] NHS contractual frameworks should be reviewed to ensure service viability, expansion, and equitable access, including patient record access, both during and outside of a pandemic. Pharmacists' clinical ability should also be utilised, perhaps through legislation changes which permit medicine substitutions. Aiding this, from 2026 all newly registered pharmacists in the UK will be prescribers, which will likely enable prescription changes, but not for existing pharmacists.

Communication issues were a common theme for both providers and policy makers, particularly the ability for CP to contact surgeries regarding prescription issues as has been previously identified,[29] and sometimes to refer patients. This meant CP teams had to make decisions about patient care which they would not ordinarily have. Increased use of NHS e-mail aided communication, but may not always be suitable in urgent situations. A lack of direct phonelines to discuss patients, and sometimes referral pathways, limited CPs care contribution and could be resolved through an NHS-wide requirement for dedicated CP-GP surgery phonelines and referrals to ensure national consistency.

More broadly, while some providers felt that working relationships with surgeries were poor, policy makers felt that relationships improved. This may be due to differences between provider and policy maker roles and who they communicate with, for example providers contact GP

surgeries about patient care), whereas policy makers are more involved with service coordination and partnership with GP surgeries and wider PCNs. Competition with surgeries to provide services, such as COVID-19 vaccinations, was also thought to impact effective CP-GP surgery working, with no provider commissioned. Efforts should be made to increase policy makers' understanding of provider roles, and vice versa, to maximise working relationships with GP surgeries and other providers. Commissioning processes should also be fair, offering all primary care providers equitable opportunities to provide clinical services.

Safety was a major concern, with CP not afforded the same protection as other NHS providers. While CPs were still open to the public, with substantial health risk, GP surgeries were not as accessible in-person. Differences between in-person provider availability are likely due to inherent differences in service delivery and roles (e.g., CPs require physical contact to handover a prescription), whereas this is not always necessary for purely consultation based providers (e.g., GP surgeries). However, CPs still provided blood pressure tests, sometimes referred by GP surgeries who would not offer this. In preparation for a future pandemic, activities which require in-person contact, or can be undertaken remotely, should be reviewed for CP, GP surgeries and other providers. This should include consideration of approaches to hub and spoke dispensing, which can free up CP teams to expand their clinical services.[30] This should be informed by the limitations of remote activities, such as virtual consultations which are not suitable for all patients, including those with confusion or who require a full assessment.[31]

4.1. Limitations

As the supervising author is an academic pharmacist, to support independence, the other authors are medical students who contributed to all aspects of the study and carried out most interviews. To limit influence of the supervising author (a pharmacist) on potential participation and conflict of interest, most contact from providers – and all from policy makers – were forwarded to the other authors for consent and interview.

Other limitations, the sample size was small – especially for policy makers. This limits the generalisability, particularly given thematic saturation was only achieved for providers and not policy makers. Further, snowball sampling was used, which may have led to a sample of only those most interested in the topic (i.e. those interested in cascading the study through their networks of potentially similar people). Supporting generalisability, participants were recruited from multiple areas across England and had varied years of experience working in the CP sector.

5. Conclusion

The COVID-19 pandemic re-confirmed CPs role of providing accessible healthcare, particularly medicines provision, but also highlighted the demand for in-person clinical services. This study highlights several suggestions, both for ordinary times but also in preparation for potential future pandemics both in England and internationally. Improvements in how CP contact other providers, particularly GP surgeries, are required to ensure high quality care. With regards to the safety, equitability and sustainability of CP services, the UK government should review CP funding and staffing, in-person service accessibility compared with other providers – notably GP surgeries, and make legislative changes which empower CPs to fully contribute to patient care. With these changes, is the goal to enhance efficiency or add value to communities, or both?

Author contribution statement

DG conceptualised the study; HW, AG, SH and DG contributed to data collection; HW, AG and DG analysed and synthesised data; and DG drafted the final manuscript with input from HW and AG. HW and AG contributed equally to this study and publication.

Funding statement

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

Thank you to all study participants for taking part when under significant work pressures, and to Professor David Wright for reviewing the manuscript.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.rcsop.2023.100344.

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