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Patients' perceptions of self-administered dosing to opioid agonist treatment and other changes during the COVID-19 pandemic: a qualitative study

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ABSTRACT

Objectives During the COVID-19 pandemic, addiction treatment services received official guidance asking them to limit face-to-face contact with patients and to prescribe opioid agonist treatment (OAT) medication flexibly. With the aim for most patients to receive take-home supplies for self-administration rather than attendance for observed daily dosing.

Design This was a theory-driven, clinically applied qualitative study, with data for thematic analysis collected by semi-structured, audio-recorded, telephone interviews.

Participants Twenty-seven adults (aged ≥18 years) enrolled in sublingual (tablet) buprenorphine and oral (liquid) methadone OAT.

Setting Community addictions centre in the London Borough of Lambeth operated by South London and Maudsley NHS Trust.

Results Three major themes were identified: (1) dissatisfaction and perceived stigma with OAT medication dispensing arrangements before the pandemic; (2) positive adaptations in response to COVID-19 by services; (3) participants recommended that, according to preference and evidence of adherence, OAT should be personalised to offer increasing medication supplies for self-administration from as early as 7 days after commencement of maintenance prescribing.

Conclusions In an applied qualitative study of patients enrolled in OAT during the COVID-19 pandemic, participants endorsed their opportunity to take medication themselves at home and with virtual addiction support. Most patients described a preference for self-administration with increased dispensing supplies, from as early as 7 days into maintenance treatment, if they could demonstrate adherence to their prescription.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Empathic patient-centred study of experience of opioid agonist intervention and clinical services.
⇒ Theory-driven, thematic approach to data analysis.
⇒ This was an opportunistic study commenced with haste and limited patient involvement in the design of the study.
⇒ Data was gathered during the COVID-19 pandemic and thus the study's findings need to be considered with caution when generalised to contexts outside of the pandemic.

INTRODUCTION

Opioid use disorder (OUD)[1] is a chronic and debilitating disorder associated with a substantial global burden of disease.[2] England has a longstanding epidemic of OUD that largely involves heroin. During April 2019–March 2020, 141 000 people started OUD treatment in specialist treatment centres operated by the National Health Service (NHS) and the non-governmental sector.[3]

Standard care treatment for OUD is either oral (liquid) methadone (MET) or sublingual (tablet) buprenorphine (BUP; or the combination of BUP and naloxone (4:1 ratio)) maintenance therapy with case management and general counselling. Time spent in opioid agonist treatment (OAT) is associated with reduced non-medical opioid use and longer periods of abstinence[4 5] and an attenuated risk of fatal opioid overdose.[6 7] Other benefits can include a substantial reduction in the risk of opioid poisoning (overdose), reduced criminal involvement and improvements in social and occupational functioning.[8] However, adherence and retention in treatment is suboptimal, and many patients do not achieve their desired outcomes.[9] In England, the largest representative study of patients enrolled in OAT for 12–26 weeks (n=12 745) reported that 64% used heroin on 10 of the past 28 days at medical review.[10]

NHS treatment services for OUD are required to adhere to UK national clinical guidelines pertaining to OAT procedures. From admission, the patient attends a community retail pharmacy for observed

daily dosing.[11] After several weeks, the prescription for adherent patients is progressively adjusted to enable increasing take-home supplies (up to 14 days) for self-administration. Patients are considered adherent when there is evidence that they are collecting their OAT as directed; urine drug screening (UDS) indicates medication use and abstinence from illicit opioids. Self-administered dosing is favoured by patients and is supported by prescribers, due to minimising inconveniences of frequent visits and promoting patient agency in their treatment.[12] Some patients consider daily observed dosing to be stigmatising, and this can motivate their decision to discontinue treatment.[13]

If the pharmacist reports that the patient has not attended for 3 consecutive days, the prescription is ceased and the patient must re-start treatment to reduce their risk of fatal overdose. This practice has been supported because of evidence that some patients struggle to adhere to OAT regimen, risking their safety through illicit use 'on top',[14] and due to public safety concerns that take-home medication may be given or sold to other people, risking opioid poisoning.[15] OAT diversion has long been a concern for public safety. Previous research has reported a range of motives for diversion, including selling medication to fund illicit drug use; an effort to help others with OUD who have failed to collect their prescription, or those who believe they are not receiving an adequate dose.[16]

In March 2020, in response to the UK government's public health and social distancing measures to control the spread of COVID-19 infection, many retail pharmacies were operating at reduced opening hours or were closed. On 15 April 2020, the Department of Health and Social Care issued guidance asking addiction treatment services to reduce patient contact where it was judged safe to do so. Services were to offer care remotely to reduce the risk of infection among patients, staff and the public, and to prescribe OAT medication flexibly with the aim for most patients to receive take-home supplies for self-administration and be closely monitored.[17] This guidance was withdrawn by the UK government on 19 July 2021.

This was an unprecedented and time-bound change to the delivery of OAT and afforded a unique opportunity for a focused qualitative service-evaluation. This design was pragmatic with data collected remotely via telephone or video call. Philosophically, we took an interpretivist stance for the study contending that while there is an objective reality, individuals experience and interpret their experiences in different ways, but this can be understood through empathic interaction.

Our aim was to investigate how patients with OUD: (1) experienced their addiction treatment from the treatment centre, in particular changes to their OAT prescription regimens and delivery in response to COVID-19-related service adaptations; and (2) how they believed OAT delivery could be improved in the future.

METHODS

Design, setting and participants

This was a theory-driven, clinically applied qualitative study in response to the implementation of COVID-19 public health measures (in April 2020) impacting on OAT service delivery.

Study data was collected by a semi-structured interview and was analysed deductively and inductively. We expected that study participants' perceptions and behaviours relating to medication adherence—specifically in relation to the instruction to take medication at home as directed—would coalesce around themes deduced from the Necessity-Concerns Framework (NCF). This theory predicts that utilisation of medication prescribed for a chronic disease is influenced by belief systems held by the patient and prescriber. The NCF proposes that a medication will be taken when the patient's beliefs (implicit and explicit) about the necessity of medication exceed or outweigh any perceived or experienced barriers or concerns they have, such as treatment emergent adverse effects.[18] Therefore, medication adherence is greater when the individual's beliefs are congruent with the necessity of the medication and such beliefs exceed their concerns. NCF has found support across many disorder and disease domains, including depression,[19] haemophilia[20] and kidney disease.[21] In turn it provides a convincing model for researchers and clinicians to understand patient medication adherence. Inductively, we considered that there might be views that did not align with the NCF, so our findings might contribute to advancing knowledge of medication adherence in this population.

The setting was a community addictions centre operated by South London and Maudsley NHS Trust, situated within the socially and ethnically diverse London Borough of Lambeth. This centre offers treatment via a multidisciplinary team with psychiatry, nursing, psychology and social work specialties, where patients are assigned a member of the team (key-worker) for case management. This service provides care for approximately 400 patients with opiate use disorder. The service was selected as the clinicians leading this study were based within the service and the primary aim was to provide a service evaluation of patient well-being and service care during the pandemic.

Eligible participants were adults (18 years and over) enrolled in ongoing OAT at the point where observed dosing was suspended (existing OAT episode) and those who commenced treatment after implementation of the pandemic restrictions (new OAT episode). Participation was voluntary with written consent.

Data collection and procedure

A semi-structured interview schedule was developed which included the following topics: perceptions of OAT during the COVID-19-related service changes, including changes in contact with the service; experience of attending the pharmacy for dispensing of medication for self-administration; and discussion about ways OAT

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could be improved. Staff at the centre were informed about the study and approached patients already enrolled on OAT (accessing OUD treatment from the service prior to 23 March 2020) or were on a new treatment OAT episode (those entering into treatment after 23 March 2020), about their interest in taking part. The research aims were discussed with the patients by staff and interested patients were referred to the research team, who confirmed eligibility for those identified via the electronic patient record. Eligible patients, following verbal consent were interviewed by GS and ST via telephone and—subject to additional consent—were audio recorded by QuickTime (V.7.7.9). Notes were taken during all interviews.

In accordance with the local information governance policy—personal-demographic information (gender, age, ethnicity) and a brief description of the participant's dispensing regimen were recorded and stored on a password-protected file accessible only to the research team.

No compensation was provided to the participants due to limited resources within the NHS service.

Patient and participant involvement

There was no patient or participant involvement in the study design because it was planned and implemented opportunistically.

Data management and analysis

Data were analysed by GS and ST following principles of thematic analysis[22] following a sequential and iterative process of categorisation,[23] with the following steps:

1. *Familiarisation*—each audio file was listened to several times, then transcribed verbatim, along with studying of notes to generate a preliminary code list with brief labelling of each topic and flagging of topics that recurred;
2. *Indexing*—the data was imported into NVivo (V.12) and each interviewer 'open coded' a sample of six transcriptions to develop a preliminary coding framework. The NCF was applied to the data using numerical codes, each with a brief description to produce a working then final coding framework;
3. *Interpreting major and minor themes*-through consensus discussion and referencing the NCF, topics were synthesised into major and minor themes. This determined evidence of consistency among participants as well evidence for contrary views and behaviours. This process was repeated until thematic saturation reached. Uncoded data (containing residual information) was free-coded, inductively.

Results were organised and presented by major and minor themes, with anonymised verbatim quotations to illustrate. Participant quotations were labelled with participant (P) number, gender (M/F) and OAT group (existing/new OAT episode).

Table 1 Participant characteristics (n=27)

Characteristic	n
Age, years	47.3 (8.7)
Sex	
Male	22 (81.5)
Female	5 (18.5)
Ethnicity	
White British	14 (51.9)
Black British	4 (14.8)
Other	9 (33.3)
OAT	
Methadone	17 (63.0)
Buprenorphine	10 (37.0)
OAT episode and regimen	
Existing episode—change to self-administered dosing	20 (74.1)
Existing episode—already self-administered dosing	2 (7.1)
New episode—self-administered dosing from induction	5 (18.5)

Numbers in parentheses are SD or percentage.
OAT, opioid agonist treatment.

RESULTS

Participants

Thirty-five patients expressed interest, but we could not contact 8. Therefore, 27 patients consented to participate. Two participants declined audio recording but were content for the interviewer's notes to be used for the analysis. The characteristics of the sample are shown in table 1. Most (81.5%) were existing OAT episodes at the time guidelines on dispensing were published, and almost all were subject to the new procedure of take-home supplies for self-administration. At the time of interview, no participant reported being advised to socially isolate.

The 27 transcripts yielded 25 unique codes relating to the study aims. These codes were organised into the three overarching themes: (1) Negative views of OAT dispensing policy before the April 2020 changes; (2) Positive adaptations in response to COVID-19 by services; (3) OAT should be more personalised according to adherence. Quotations (italics) illustrate these themes below.

Theme 1: Negative views of OAT dispensing policy before the April 2020 changes

Twenty-two participants (81.5%) reported concerns about the way OAT medication had been dispensed before April 2020. There were complaints about the daily attendance requirement including the cost involved; the view that some pharmacies had restricted opening times (which did not suit those in employment); complaints about lengthy wait times to receive dosing; it conflicting with other activities; and a sense of embarrassment and

perceived stigma by some members of the pharmacy team and customers. Three participants reflected on their experience of attending their local community retail pharmacy before the change to self-administered dosing:

> The good thing is I don't have to keep going to the chemist which is a pain, a real pain… normally dealing with my chemist, is unreliable…like they keep changing the pharmacist so you have to go through all the rigmarole of it being controlled and that, proving who you are and where you live and stuff. (P10/M/existing OAT episode)

> I mean it was a hassle having to go every day and also it's a little bit, embarrassing. (P6/M/existing OAT episode)

> I can't afford to come every day and I fell off so many times just because there's always something to do or I have work so I took the opportunity to come back. I have a weekly pick up. Actually if I'm honest I had a weekly pick up at that time as well. But it was straight before the weekend and then I didn't go Saturday and Sunday they were closed, and Monday I was too late already. (P8/F/new OAT episode)

Theme 2: Positive adaptations in response to COVID-19 by services

Within this major theme, a minor theme emerged that highlighted the positive experience participants received in their treatment from pharmacy and treatment centre staff during the pandemic. This included the abrupt cessation of pharmacy supervised dosing, this was regarded as a good response to maintain provision of treatment during the COVID-19 pandemic. There were also positive comments about the running of the pharmacy and treatment service—including staying open despite disruption caused by COVID-19 and remaining professional, compassionate, and responsive to individuals' needs.

> …I'm getting support that way and I'm getting the medication which is vital and I'm really grateful to yourselves and the chemist for operating and staying open and taking measures to allow me to, and other addicts to get their medication because I was really stressed about that, when things were starting to get worse with coronavirus and I was hoping, I was afraid, that it would affect my supply of methadone so the fact that it's still coming through and I get it every day is a huge relief and I'm super grateful for [the service] allowing that to happen. (P6/M/existing OAT episode)

> …So I pay for my prescriptions because I work and where I was running out of money I couldn't pay for my prescriptions. I had a chat with the guy at the chemist and he let me owe him it and pay him this week…He said to me, "no that's ok. Bring it in the next time you come in".(P7/M/existing OAT episode)

The centre continuing treatment under remote care arrangements was appreciated by patients, there were minimal concerns expressed about the shift from face-to-face to telephone or video contact with staff. Two judged that:

> I don't mind it [remote], it's pretty much the same. I'm always there, like whenever they've got an appointment I'm always there. But over the phone I do find it quite better…so I don't have to go out my way to go there. If I have something to do, maybe my mum wants me to do something that day, I've always had to go around the appointments. (P35/M/existing OAT episode)

> Well…the travelling and stuff, not having to go out all the time [is a benefit]. Some days where I can't get the bus [due to anxiety]… yeh it is ok, I don't mind. You can't see me here welling up, so I prefer that. (P15/F/existing OAT episode)

Another was satisfied by the way the service had adapted to the abrupt cessation of patient visits:

> …Sometimes I suffer from abscesses due to injecting. So, I spoke to my doctor two days ago about one on my leg and I couldn't get a face-to-face appointment, so we did a video call, and I had to show her the leg… it is ok because she saw it. (P11/M/existing OAT episode)

However, a minority raised concerns that the lack of physical access to the centre served to accentuate social isolation and this was especially so among those with limited access to needed technology.

> Yeh it's ok, I don't mind…I don't mind, I like calling now. But it's good to go out and get out…Yeh, I like going out and being out. I don't like being stuck in my room. I hate it, stuck in a room and feel a bit mad. (P15/F/existing OAT episode)

> …Half of them don't even have a phone, half the time the phone doesn't work, half the time they're running to score. It would be really hard to still have phone contact if it was obligational. (P7/M/existing OAT episode)

> It's maybe a little bit difficult [due to technology], face to face communication you can, it may be a little bit easier with just seeing the person. (P8, F, new OAT episode)

Another minor theme that emerged within this theme was specifically related to self-administration OAT dispensing.

Self-administration dosing changes to patients' OAT prescriptions in response to COVID-19 and associated social distancing guidance were strategic and risk assessed, via clinical interview and UDS. It was common for those who were deemed safe, to be moved to the next less frequent collection regimen, for example, weekly to fortnightly. As well as, those supervised to be changed to unsupervised following a period of monitoring and evidence of adherence to their prescription.

Most described the change to self-administered dosing reflected trust in the patient and beneficial. They welcomed the promise of infrequent pharmacy attendance due to the increase in self-administration dosing practices. Reasons for this varied, but the reduction in pharmacy attendance inadvertently addressed accessibility barriers for a number of those interviewed, including those with physical health issues, others did not need to miss paid work to attend the pharmacy for medication collection and it enabled another to take medication at a time that suited night work.

Another described the reduced collection regimen helped reduce their illicit drug use, due to staying at home more and having less temptation. For others, it reduced the number of appointments and in turn reduced the risk of missing an appointment and subsequent implication on their prescription regimen.

> Yeah, it's been a lot easier, what with my health being the way it is, it's a struggle getting to the chemist every day…I think it shows trust [to the service-users from the service]…saves me having to walk to the chemist in agony every time, and now I only have to go once a week. (P27/M/existing OAT episode)

> I was working last year and it did help me a lot not to use, so I'm starting to think again about getting back into work, that will be helpful. Some jobs you have to be there at 9, and the pharmacy opens at 9 and if you have to be at work at 9, you won't be able to do it… It just that, sometimes it feels like a very long process you know. (P33/M/existing OAT episode)

> I mean it doesn't bother me either way, but I do want, I am taking it at my own time which I am happy [about]. Because my normal work before the virus I was doing night shifts cleaning. So sleeping all day and I would have to normally wake up to go and going and get my supervision at the pharmacy. Which was a bit messed up in my sleeping pattern. So this way if I could stay off supervision, I would be able to have it late at night, and wouldn't have to wake up and go pharmacy. (P11/M/existing OAT episode)

> Actually [the pandemic restrictions] have been really helpful because sometimes before when I was trying to go [to the pharmacy] every day…I would sometimes use illicitly whereas now I stay at home. I haven't got that temptation. (P18/M/existing OAT episode)

> Just being able to have the weekly pickup you know. It was a godsend not having to worry about not being able to get to the chemist and missing an appointment and things… (P31/M/existing OAT episode)

A minority of participants—all having been assessed at risk of overdose or medication diversion—had been retained on daily observed maintenance dosing. They all expressed frustration about this.

> I just think that one thing that gets to me is that people who are on the supervised, they look at it as, kind of, they feel like it's a punishment if you know what I mean. When some of them are quite stable and yet they, ok they might be doing other things and that, but after 10 or 12 years of it, it's like…, of course there's a minority who are completely, uncontrollable, but just because of those people, everybody suffers. (P10/M/existing OAT episode)

Views about medication adherence suggested that individual motivations would determine response to take-home supplies. One participant observed:

> First day I was supervised because I was higher-ing the dose, but they just give you the pill. You don't take it there. So in this kind of case, it doesn't really matter from this perspective because the person that will want to sell it will just sell it every day, or once a week. It will not make any change for you guys, or for the market of drugs. (P8/F/new OAT episode)

Theme 3: OAT should be more personalised according to adherence

Participants recommended the future of the service to be one that endorsed a more personalised approach, that balanced supervised and self-administered dosing. One participant with previous experience of OAT, but newly admitted for a new episode, offered the following considered perspective:

> I would say that from the beginning for people that are first time coming, definitely face-to-face. Later on, depends on the people, if you're working, if you have a full-time job and you have other obligations…I'm putting the service-users into two groups. One group would [visit the service] just to have safety, and they're normally doing whatever they were doing before. And [then there are] service-users that take [their] medication. So, the second group, definitely it's better to do the phone, I would say, because you're already integrating back into society. You have work, you have friends, you have sport, you have other stuff that you are doing. Meanwhile the first group, I don't know. Half of them don't even have a phone, half the time the phone doesn't work, half the time they're running to score. It's not hard to learn who's taking something and who's not…I think it's going way too much by the template. Yeah, definitely think it should be more individual especially for the second group when they see that you are completely clean and that you are really taking only [OAT medication]. (P8/F/new OAT episode)

Another participant reflected:

> It's almost like before there's a punishment aspect to it that you've got yourself into this trouble and you know, and it's all the running around and being treated like a child…I just hope this is something that can

go forward with the treatment and the present set up. Because it would be funny if in, I don't know, 3 months, 6 months-time if there's been no problems and you go backwards, it would seem like a strange move…Yeah, it means I could go and visit family in another country and take my script with me and, yeah, it would make me more free, which is good. Not tied down to going to the chemist every day. (P18/M/current OAT episode)

DISCUSSION

Against a background of several aspects of dissatisfaction with pre-pandemic OAT dispensing (daily pharmacy attendance, pharmacy opening times and waiting times for service, and perceived stigma), participants reported several positive aspects of the abrupt changes in response to the pandemic. Including an appreciation that pharmacies stayed open, the teams were perceived as caring to individual needs and a ready adaptation to remote contact with the treatment centre. Longer dispensing intervals and self-administered dosing were regarded as conveying trust in the patient, and also gave freedom for work and engagement in other activities. Participants recommended a continuation of self-administered dosing and patient-centred prescribing. There were few reports that medication was not taken as directed, and in-line with the NCF there was a consensus that OAT medication was valued and provided important benefits.

Our study suggests that the NCF is applicable to OAT medication adherence phenomena. Most patients described continued adherence to the OAT medication, despite considerable changes to their medication delivery or entered into treatment to access OAT medication. Typically, patients described their OAT as vital and reactive anxiety regarding accessing their medication when the COVID-19 pandemic occurred. Together, these reports reflect a sense of necessity for OAT medication and that this outweighs any concerns about taking the medication and stress associated with contracting COVID-19 virus when accessing treatment.

This study also offers novel insight into the many practical and environmental barriers to being treatment adherent for OUD. These barriers included the cost of attending, attendance to the service risked drug relapse due to environmental cues and detrimental implications on employment. These findings directly speak to Horne and colleagues'[24] call for further investigation into whether practical barriers to care have a greater impact on some population's seeking medications. These results indicate that while medication adherence is particularly nuanced within this clinical population many are impacted by practical barriers. Additionally, COVID-19 triggered changes to medication collection and in turn mitigated these barriers and ought to be maintained in post COVID-19 service delivery. Overall, highlighting the need for a personalised approach and questioning the effectiveness of previous rigid treatment protocols for OUD.

The guidelines in which clinicians within addiction services follow have largely been in response to public health concerns. As a consequence, the application of blanket policies individuals need to meet in accessing treatment has been the tradition. The results from this study, utilising a person-centred model (NCF) to addiction treatment, further questions the value of the standard daily dose dispensing and supervised consumption protocol. Personalised models of treatment for OUD, as opposed to blanket guidance, have long been recommended within the addiction literature.[25 26] These new qualitative findings born from unprecedented international events and reactive OAT guidance are consistent with this, emphasising flexible approaches that demonstrate trust and allow individuals to adhere to their treatment plans (longer dosing pick up, virtual support) and engage in out of treatment activities, including employment.

It was notable that patients did not report concerns about OAT side effects or their implications on adherence. A common concern reported within other illnesses that can determine medication adherence. It could be hypothesised that many individuals within the study perceived OAT as a welcome relief for the aversive symptoms of opiate withdrawal, thus necessity significantly outweighed concerns.[27] Alternatively, such results could be a consequence of the study design—patients were enrolled or imminently about to be enrolled in OAT, thus medication seeking. Additionally, these responses could be explained by the semi-structured nature of the interview schedule, which did not explicitly enquire about side-effects of medication given the focus was on changes to medication collection in the context of the pandemic.

We recognise that this was a relatively small-scale study and there are several limitations. First, it was beyond the scope of this study to investigate the applicability of the NCF on general OAT adherence within the OUD population outside of a pandemic context. Therefore, additional research ought to investigate the NCF applicability to OAT adherence beyond the pandemic context. Additionally, this was a purposive and self-selecting sample, with potential for response bias. Our participants do reflect a relatively small sample of patients enrolled in OAT in one London Borough and therefore may not generalise to other addiction clinics including treatment systems overseas. Nevertheless, the study was done at a specialist NHS addictions treatment service providing OAT that is delivered following a clinical protocol among all NHS providers in the UK. Therefore, we contend that our sample was broadly representative of this clinical population including a range of patients with prior experience, those embarking on a new treatment episode and also those identified as high risk with continued daily observed dispensing.

As an applied qualitative study, fieldwork was done at pace, and further studies are needed to investigate

current views of treatment among this clinical population and corroborate this study's findings, including from samples across the globe and within different treatment centres. Additionally, future studies would do well with further resources and time, to access more patients within the new to OAT subgroup, given they were a minority group within our sample. As well as, support a co-production model of study design with patients in this clinical population.

Our findings on the benefits of reduced prescription collection are consistent with published qualitative research conducted at the same time as this study. They concluded that patients living in rural communities also quickly adapted to changing treatment policy[28] and a further benefit to longer-interval prescribing of OAT facilitates engagement in alternative activities, including employment for the individual. This study's findings also align with a study of prescribing services in two north London Boroughs[29] and a global systematic review of 25 studies published in 2020 (mostly in the USA) on the adaptation of OAT and allied services to pandemic restrictions.[30] In this review, the most common innovation was the offer of telephone or online services, and longer interval prescribing of medication. For the former, there were examples of innovative solutions to help patients with no access to mobile phones (eg, distribution of free mobile phones to patients by one treatment provider[31]), service buildings sanitised phone booths outside their centre for private video calls with staff and to receive counselling.[32 33] For the latter, comparable arrangements with longer interval dispensing was reported in the USA,[34] Canada,[35] Spain[36] and Italy.[37] We do not know if these were short-term arrangements, but there has been discussion of the implications for more flexible arrangements for patients.

Our findings contribute to the international discussion about the opportunities for more flexible treatment. We propose an individual approach in which patients are supported to evaluate their capacity for medication adherence at an appropriately early point. Current UK clinical guidelines already promote individualised care—but perhaps there is a case to evaluate a faster process of dose increase to achieve a stable and effective dose for the patient so that the adherent can receive their first 7-day take-home supply as early as is safe to do so. Supervised dispensing of OAT medications exists to ensure compliance with the prescription and to reduce the risk of medication diversion. There is emerging evidence of an increase of methadone-related deaths during the first COVID-19 'lockdown' both in-treatment and among people not in treatment.[38] Balancing these risks with patient-centred care remains a central element of delivering specialist treatment for opiate use disorders.

Overall, this qualitative study collected the subjective experiences, perspectives and concerns of patients, who were representative of those seen in community drug treatment settings. In doing so, this study seized a unique opportunity in our centre to gather patient insights to inform OAT delivery. The NCF was generally applicable to this clinical population and three major themes emerged from the interviews; dissatisfaction with pre-pandemic OAT medication dispensing and changes in guidance and service delivery initiated by the pandemic were mostly perceived as positive and effective. This included positive attitudes and behaviour of pharmacy and centre staff, increased self-administration of medication demonstrated trust and promoted autonomy in the patient and their experience of receiving medication supplies for self-administration during the pandemic were positive. Generally, participants recommended that such changes remain beyond the pandemic, including individualised OAT dispensing plans be based on patient preference and evidence of adherence, along with the option of remote addiction support. Together these findings highlight the perceived importance and necessity of OAT for patients, including through a public health crisis and for most, accessing their treatment was improved by pandemic-associated changes. These findings are consistent with the wider literature, pandemic-associated NHS service changes were generally well received, offering new opportunities to patients, and that of addiction treatment more widely; patient-centred, personalised and flexible treatments are preferred by patients receiving OAT.

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Contributors The design was conceived by JM, LM and MK. GS and ST conducted the interviews, transcribed and analysed the data under supervision from JM. GS and JM drafted the initial manuscript, with contributions from LM, ST, WA, AH, KM, NL and MK for subsequent revisions. GS took the final decision to submit the manuscript for publication. LM and JM are joint last authors.

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Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and the study protocol was reviewed and approved by the Chair of the Trust's Addictions Clinical Academic Group (SEP/EF/4/2020). Participants gave informed consent to participate in the study before taking part.

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