PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Patients' perceptions of self-administered dosing to opioid agonist treatment and other changes during the Covid-19 pandemic: a qualitative study.
AUTHORS	Scott, Gemma; Turner, Sophie; Lowry, Natalie; Hodge, Annette; Ashraf, Waniya; McClean, Katie; Kelleher, Mike; Mitcheson, Luke; Marsden, John

VERSION 1 – REVIEW

REVIEWER	Ali, Farihah Centre for Addiction and Mental Health, Institute for Mental Health Policy Research
REVIEW RETURNED	04-Dec-2022

GENERAL COMMENTS	Abstract Line 16: "interview" should be plural Line 37: remove "a": "should be a personalized...." Line 46 and 47: add "and with virtual addiction support" Line 47: virtual addiction support was not mentioned as part of the themes in the results section, 7 days and one week are being used interchangeably- recommend sticking to one way for consistency Page 3 Line 27: Consider revising the word "optimal" Line 35: standard OF careIt would be good to add a little bit more background as to why self-administered dosing is favoured by patients (including inconveniences of frequent visits). Pg 4- Further elaboration of the NCF would be helpful Pg 5/30:Line 4: operating "at" reduced hours- what were the implications of this Line 13: It is unclear what the authors mean when saying that the guidance was withdrawn because of the progression of the pandemic- why was this decision made? The aim is unclear: understanding the difference between their treatment from a treatment centre and self-administered dosing? Do you mean you are looking to identify the different perceptions related to the service adaptations because of COVID? What were the exact dates for data collection Line 10: perceptions "of"Perceptions of OAT is very broad- in relation to what? Changes in contact with the service- in terms of what? specify COVID? What was the specific inclusion criteria- this needs to be fleshed out more. Existing OAT participants were on OAT for how long? Line 26- what do you mean by "one-off interviewers" Unclear what is meant by "patient and participant involvement" line 34 & 35 Line 59-60: are minor themes and sub-themes used interchangeably? Pg 6- It seems as though theme 3 should be collapsed with theme 2 as part of the positive changes?

	Line 48-53- this shouldn't be included under this theme, it belongs under theme 2 under adaptationsI don't see the value of keeping the participant number after the quotes. Line 44-50 quote about prescription payment, is not relevant to the theme of positive adaptations in response to COVID-19 that is an individual experience. It would be interesting to see what other positive adaptations were made. I would consider removing this Page 9- for the first quote about switching to phone from face-to-face, is there a quote that speaks of why the phone is better or more convenient (similar to the other quotes which follow). If not, I would consider deleting Line 34-35, can you give a quote about an individual speaking to the difficulty due to the lack of technology? Theme 3 introduction (line 55-57) contradicts your previous theme, and should be included in considerations of changes to services because of COVID. To begin that theme, it would be good to provide a description specifically related to self-administered dosing pattern changes. When the authors mention "one service-user", that is not necessarily representative of a group of people, and can not be considered as a theme. What are the overarching comments among participants with respect to self-administered practices? Again, I think this should be amalgamated with theme 2 and overall discussion of perceptions of changes tdue COVID-19 and then could be further broken down into positive or negative. Page 9 line 7-10, the quote doesn't reflect the previous sentences referencing not having to miss work, and take the medication when needed. Perhaps add a line which alludes to also facilitating easier access when individuals are not feeling well. Also this quote speaks to the trust aspect. Page 11- line 2- how have participants been assessed at risk Overall, the quotes illustrated in the findings need to be flushed out more. As of now, it reads simply as a list of quotes, not properly organized and categorized into themes that make sense and speak to what the intent of the theme is. Discussion- the discussion is severely lacking evidence-based information about the importance of self-dosing. The focus of the paper does not seem to align with the paper title, and discussion speaks to the necessity for OAT medication which has nothing to essentially do with self-administered practices. The debate as to whether OAT is provided has not been up for discussion, but rather, whether there are other practices that are more helpful/beneficial.The discussion also spends too much time summarizing the findings, which should be integrated better in the findings section. The discussion should focus on the adaptation of practices and the need to offer personalized approaches, where applicable. Overall, the paper would benefit from a thorough editorial and grammatical review, and restructuring of themes and findings to make it more novel. The findings are consistent with other studies that essentially highlight the same thing.

REVIEWER	Oviedo-Joekes, Eugenia University of British Columbia, School of Population and Public Health
REVIEW RETURNED	05-Dec-2022

GENERAL COMMENTS	This paper adds to the current overwhelming literature showing that changes implemented during the pandemic, especially lifting restriction on OAT take home, were beneficial and low risk. The manuscript is overall well written, although there are some sections

	where a second read would be beneficial to catch some typos and grammar issues. The aim of the study is to investigate OAT service perception and improvement recommendations. As stated, this is not a novel topic per se. The introduction discusses the topic of take-home and measures during COVID, implemented and withdrawn, but none of this crucial sequence seemed to have been part of the research question. Also, the data collection shows a script that does not touch in those topics either. If the intention of the authors was to capture the changes occurred, that needs to be reflected in the research question. If not, it would be helpful to provide context to understand the need of the study, instead of the need of implementing the finding of other studies on service users' perceptions on OAT. The discussion section is pragmatic and strong. It could benefit from adding a few references from person-centered addiction care to strengthen the argument. Some specific comments are below: Introduction About this paragraph: "During maintenance, if the pharmacist reports that the patient has not attended as required, further prescribing is curtailed, and if three days are missed, treatment is re-started to reduce their risk of fatal overdose". What does it mean "not attending as required"? It reads pretty general. Is it left to the discretion of the pharmacist? Also, the authors continue later and indicate that the practice of reducing or withdrawing prescription might be welcomed since "some patients struggle to adhere to OAT regimen". This generalization might be confusing. What about the OAT regime clients struggle with? If the authors will bring the argument of curtailing take-home due to public health concerns due to diversion, it would help to contextualize with studies that have attempted to understand when and why people might share their prescribed medication for opioid use disorder. Some overall finding on service users' perceptions on OAT would be helpful in the introduction for overall context. Methods Why was this place selected. Some information would be helpful, such as: How this relate to other similar sites, how many clients they tend to, what type of population they serve, and what type of services they offer? You indicate in the limitations that this is a small sample, etc. What would be helpful is to understand the context so the reader can make their own comparison should they need to do so in future studies or citations. The staff at the centre approached patients about their interest in taking part in this study. How did recruitment go from there? Where there incentives? Were participants equitable compensated for their time dedicated to the study? If not, why? What do the authors meant with this sentence? "There was no patient or participant involvement due to the opportunistic nature of

	this project." Results: nothing to add. Well presented Discussion: There is quite ample literature in person-centred care in addiction that can be added in paragraph challenging a blanket policy for all that aligns with the authors argument and will connect with the overall scientific literature. Individualized care, for instance, would go along with this argument. There are several important aspects in the discussion that the authors bring up. A final conclusion paragraph can bring back the most salient points from the discussion, even if not part of the journals' submission guidelines, just a final closing paragraph.

VERSION 1 – AUTHOR RESPONSE

REVIEWER #1

1. Abstract Line 16: "interview" should be plural Line 37: remove "a": "should be a personalized....". Line 46 and 47: add "and with virtual addiction support".

RESPONSE: Text corrected.

2. Line 47: virtual addiction support was not mentioned as part of the themes in the results section.

RESPONSE: Please see theme 2, illustrative quotes are now provided: *"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."*

3. 4.7 days and one week are being used interchangeably- recommend sticking to one way for consistency

RESPONSE: 7 days is used consistently.

4. Page 3 Line 27: Consider revising use of 'optimal'.

RESPONSE: We now use 'effective'.

5. Line 35: standard OF care. It would be good to add a little bit more background as to why self-administered dosing is favoured by patients (including inconveniences of frequent visits).

RESPONSE: We now include a new sentence and reference: *"…due to minimising inconveniences of frequent visits and promoting patient agency in their treatment* [12]".

6. Page 4- Further elaboration of the NCF would be helpful.

RESPONSE: We have added the following: *"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."

7. It is unclear what the authors mean when saying that the guidance was withdrawn because of the progression of the pandemic- why was this decision made?

RESPONSE: We include a clarifying sentence: *"*This guidance was withdrawn by the UK government on 19 July 2021."

10. The aim is unclear: understanding the difference between their treatment from a treatment centre and self-administered dosing? Do you mean you are looking to identify the different perceptions related to the service adaptations because of COVID?

RESPONSE: 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 regimes and delivery in response to COVID-19 related service adaptations; and (2) how they believed OAT treatment delivery could be improved in the future.

11. What were the exact dates for data collection?

RESPONSE: All interviewers were conducted between 27 April 2020 and 30 June 2020.

12. Perceptions of OAT is very broad- in relation to what? Changes in contact with the service- in terms of what? specify COVID?

RESPONSE: We now say: *"A semi-structured interview schedule was developed which included the following topics: perceptions of OAT treatment 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 treatment could be improved."*

13. What was the specific inclusion criteria- this needs to be fleshed out more. Existing OAT participants were on OAT for how long?

RESPONSE: We have amended the text to read: *"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."*

14. Line 26- what do you mean by "one-off interviewers"

RESPONSE: We have removed the phrase "one-off" intended to convey single interviews.

15 Are minor themes and sub-themes used interchangeably?

RESPONSE: Yes, but we now use **'**minor' throughout.

16. Pg 6- It seems as though theme 3 should be collapsed with theme 2 as part of the positive changes?

RESPONSE: We have collapsed theme 2 with theme 3, creating minor themes with the previous 2 and 3 theme titles.

17. Line 48-53- this shouldn't be included under this theme; it belongs under theme 2 under adaptations.

RESPONSE: Amended

18. I don't see the value of keeping the participant number after the quotes.

RESPONSE: It is recommended that qualitative research to provide identifiers of quotes to ensure that a range of views are expressed, so we prefer to keep this.

19. Line 44-50 quote about prescription payment, is not relevant to the theme of positive adaptations in response to COVID-19 that is an individual experience. It would be interesting to see what other positive adaptations were made. I would consider removing this.

RESPONSE: We have removed elements of the quote for clarity: *"…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."* This quote illustrates understanding and compassion from pharmacy staff, in response to economic difficulties caused by the pandemic."

20. Page 9- for the first quote about switching to phone from face-to-face, is there a quote that speaks of why the phone is better or more convenient (similar to the other quotes which follow). If not, I would consider deleting Line 34-35.

RESPONSE: Quote deleted.

21. Can you give a quote about an individual speaking to the difficulty due to the lack of technology?

RESPONSE: We have included the following: ***"****…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."* (P07/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." (P08,F, New OAT episode)

22. Theme 3 introduction (line 55-57) contradicts your previous theme, and should be included in considerations of changes to services because of COVID.

RESPONSE: We have combined and edited the introduction for theme 2 (was theme 3) and believe that the introduction do not contradict previous theme.

23. To begin that theme, it would be good to provide a description specifically related to self-administered dosing pattern changes.

RESPONSE: We include to following description: "*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's. It was common for those whom were deemed safe, to be moved to the next less frequent collection regime, 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."*

24. When the authors mention "one service-user", that is not necessarily representative of a group of people and cannot be considered as a theme.

RESPONSE: When the finding section reports ‘one service-user’, the intention is not to indicate that this is a theme; but to provide detail as to some of the individual reasons for patients perceived benefits. It was an example within this theme of beneficial responses. We have edited the descriptions sections of the themes for clarity.

25. What are the overarching comments among participants with respect to self-administered practices? Again, I think this should be amalgamated with theme 2 and overall discussion of perceptions of changes due COVID-19 and then could be further broken down into positive or negative.

RESPONSE: Overarching comments among participants related to self-dosing have been summarised in the introduction statements of theme 2, with minor themes and codes presented prior to each illustrating quotation.

26. Page 9 line 7-10, the quote doesn't reflect the previous sentences referencing not having to miss work and take the medication when needed. Perhaps add a line which alludes to also facilitating easier access when individuals are not feeling well. Also this quote speaks to the trust aspect.

RESPONSE: We have amended and reordered the quotations to follow the minor theme title it is illustrating.

27. Page 11- line 2- how have participants been assessed at risk Overall, the quotes illustrated in the findings need to be flushed out more. As of now, it reads simply as a list of quotes, not properly organized and categorized into themes that make sense and speak to what the intent of the theme is.

RESPONSE: Edits have been made to streamline the quotations. Summary statements are offered throughout the themes that outline the minor themes captured within each theme, prior to exemplary quotes. This we believe helps to provide structure and subcategorize the broader three themes.

28. Discussion- the discussion is severely lacking evidence-based information about the importance of self-dosing.

RESPONSE: We add text on the importance of patient-centred care for addiction population has been added which we believe addresses this point, see below. This ‘patient-centred approach’ includes the ability to increase self-dosing responsibilities for patients, if indicated safe to do so. Caution is required when discussing the ‘importance’ of self-dosing, given the associated risk to life when self-dosing is offered to those not taking their OAT as prescribed. Rather, the patient’s recommendation outlines the importance of patient-centred care, of which for many self-dosing was appropriate and appreciated when offered in the covid-19 pandemic.

29. The focus of the paper does not seem to align with the paper title, and discussion speaks to the necessity for OAT medication which has nothing to essentially do with self-administered practices.

RESPONSE: We propose a change the title: *“Patients’ perceptions of self-administered dosing and other changes to opioid agonist treatment during the Covid-19 pandemic: a qualitative study.”*

30. The debate as to whether OAT is provided has not been up for discussion, but rather, whether there are other practices that are more helpful/beneficial.

RESPONSE: The necessity of OAT medication was discussed in the manuscript to compare the results with the NCF model we used to analyse the data, identifying that for the majority of those interviewed, the necessity of the medication within a pandemic and its associated changes to prescribing/treatment offer significantly outweighed their concerns/negatives of accessing and taking the medication.

31. The discussion also spends too much time summarizing the findings, which should be integrated better in the findings section.

RESPONSE: We disagree on this point. We are following best practice for qualitative research to use the results section to document themes, categories derived from the data, with any differences, similarities within or between participants/subgroups with the discussion section used for conceptualising and externalising findings. We trust that are summary is not excessive and is used to link these findings in relation to the NCF model and other studies along with practical implications. However, we have edited the text for economy.

32. The discussion should focus on the adaptation of practices and the need to offer personalized approaches, where applicable.

RESPONSE: We now include the following: *"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 policy's 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 treatment guidance are consistent with this, emphasising flexible approaches that demonstrated 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."*

REVIEWER #2

1. As stated, this is not a novel topic per se. The introduction discusses the topic of take-home and measures during COVID, implemented and withdrawn, but none of this crucial sequence seemed to have been part of the research question.

RESPONSE: This was our aim and we trust we have captured this: *"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 regimes and delivery in response to Covid-19 related service adaptations; and (2) how they believed OAT treatment delivery could be improved in the future."*

2. Data collection shows a script that does not touch in those topics either.

RESPONSE: We can reassure that the interview topic guide did indeed map to the study aims. These were the topics covered in sequence: *Could you give us some feedback on our service? What things did you like? What things could be better? How often are you talking to your keyworker? Has this changed from before the changes? How does your keyworker contact you? How is this working for you? When things get back to normal – would you want to go back to face to face appointments? What opiate medication are you receiving? When did you start? Is this your first treatment episode with this service? When were you last in treatment before now? Have you had any restarts in the past 3 months (not collecting your medication and having to come her to start again)? Does the pharmacist supervise you (observe you taking your meds? How often are you collecting your prescription from the pharmacy? How many days supply do you pick up? Has this supervision/collection regimen changed? How is this new arrangement affecting you?*

3. The discussion section is pragmatic and strong. It could benefit from adding a few references from person-centred addiction care to strengthen the argument.

RESPONSE: We had added references.

4. About this paragraph: *"If the pharmacist reports that the patient has not attended for three consecutive days, the prescription is ceased and the patient must be re-start treatment to reduce their risk of fatal overdose."* What does it mean "not attending as required"? It reads pretty general. Is it left to the discretion of the pharmacist? Also, the authors continue later and indicate that the practice of reducing or withdrawing prescription might be welcomed since "some patients struggle to adhere to OAT regimen". This generalization might be confusing. What about the OAT regime clients struggle with?

RESPONSE: Thank you for raising this we have added the following: "*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 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]."*

5. If the authors will bring the argument of curtailing take-home due to public health concerns due to diversion, it will help to contextualize with studies that have attempted to understand when and why people might share their prescribed medication for opioid use disorder.

RESPONSE: We have added a contextualising paragraph*, "OAT diversion has long been a concern for public safety. Previous research has report a tenge 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]."*

6. Some overall finding on service users' perceptions on OAT would be helpful in the introduction for overall context.

RESPONSE: We have added the following paragraph: *"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]."*

7. Why was this place selected. Some information would be helpful, such as: How this relate to other similar sites, how many clients they tend to, what type of population they serve, and what type of services they offer? You indicate in the limitations that this is a small sample, etc. What would be helpful is to understand the context so the reader can make their own comparison should they need to do so in future studies or citations.

RESPONSE: We have added additional description of the service: *"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 multi-disciplinary 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 their patient's wellbeing and service's care during the pandemic."*

8. Were there incentives? Were participants equitable compensated for their time dedicated to the study? If not, why?

RESPONSE: This was a relatively brief telephone interview. There were no incentives and no compensation for time.

9. What do the authors meant with this sentence? “There was no patient or participant involvement due to the opportunistic nature of this project.”

RESPONSE: We now clarify: *“There was no patient or participant involvement in the study design because it was planned and implemented opportunistically.”*

10. There is quite ample literature in person-centred care in addiction that can be added in paragraph challenging a blanket policy for all that aligns with the authors argument and will connect with the overall scientific literature. Individualized care, for instance, would go along with this argument.

RESPONSE: We have edited our discussion to incorporate additional person-centred care literature: *“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 treatment guidance are consistent with this, emphasising flexible approaches that demonstrated 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.”*

11. There are several important aspects in the discussion that the authors bring up. A final conclusion paragraph can bring back the most salient points from the discussion, even if not part of the journals’ submission guidelines, just a final closing paragraph.

RESPONSE: We now include this: *“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 ceased 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.”*

VERSION 2 – REVIEW

REVIEWER	Ali, Farihah Centre for Addiction and Mental Health, Institute for Mental Health Policy Research
REVIEW RETURNED	17-Feb-2023

GENERAL COMMENTS	Thank you for your responses, they have satisfied my concerns.