

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	CONSULTATION SKILLS DEVELOPMENT IN GENERAL PRACTICE: FINDINGS FROM A QUALITATIVE STUDY OF NEWLY RECRUITED AND MORE EXPERIENCED CLINICAL PHARMACISTS DURING THE COVID-19 PANDEMIC
<b>AUTHORS</b>	Madden, Mary; Stewart, Duncan; Mills, Thomas; McCambridge, Jim

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Harris, Mark University of New South Wales, School of Public Health and Community Medicine
<b>REVIEW RETURNED</b>	29-Oct-2022

<b>GENERAL COMMENTS</b>	<p>This is an interesting qualitative study of participants in training for a new structured medication review in England. The paper is generally well written but there are some issues that need to be addressed:</p> <ol style="list-style-type: none"><li>1. The period of study was so strongly influenced by the COVID-19 Pandemic (in limiting face-to-face contact with patients) that this should be reflected in the title – the “patient facing work in primary care” was almost entirely by telephone with “most of the new ARRS pharmacists yet to meet a patient face-to-face other than at a vaccine clinic.”</li><li>2. The conduct during the Pandemic which had an impact on both the intervention (as in 1) and the data collection, should be added to the list of limitations.</li><li>3. There needs to be an explanation of the relationship between the interviewers and the participants and their involvement (if any in the intervention).</li><li>4. The topic guide should be added as an appendix.</li><li>5. In the results it is unclear what the source of information is – observation or interviews or other sources. This applies especially to the first paragraph of “Connecting pathway to practice” lines 3-10 on page 7, the consultation skills and history taking workshop sections.</li><li>6. The 10 newly appointed ARRS pharmacists were interviewed three times between September 2020 and February 2022. However the responses are not linked to time. Was there evolution of their thinking and responses over this time?</li><li>7. Also insufficient contrast is made between the experienced 10 pharmacists and the 10 newly appointed ones. This is noted in the section on “hands on preparation” and “acquiring clinically relevant skills” but not sufficiently in the workshops or the sections on “takeaways” and “achieving person-centredness”.</li><li>8. It is usual to lead into the Discussion with a summary of or reflection on the findings. The first paragraph of the Discussion is largely background that could have been given in the Introduction (although this is already quite long).</li></ol>
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	<p>9. The second paragraph provides some reflections on the impact of the program and some of its limitations. It would be useful to expand on the communication skills required and how these could be better addressed in future programs.</p> <p>10. The COVID-19 pandemic clearly had a major impact both on the intervention and evaluation. This needs to be discussed. There is only passing re</p>
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<b>REVIEWER</b>	Galbraith, Kirsten International Pharmaceutical Federation, FIPeD
<b>REVIEW RETURNED</b>	04-Dec-2022

<b>GENERAL COMMENTS</b>	<p>Thank you for the opportunity to review this interesting paper. It is a very worthy topic of investigation but the paper needs some tightening up to ensure the reader is able to make the links suggested by the authors. In particular I found it hard to determine the longitudinal aspects of the work, and to unpick the recruitment and management of the two cohorts</p> <p><b>BACKGROUND:</b> I found the use of acronyms at times confusing. Is the PCPEP an example of an "accredited pathway" referred to on p4 line 20? Is the 6-month independent prescriber training part of the ARRS or separate? How does this relate to the GPPTP? Is it recognised as an alternate training pathway for these roles? This background becomes important as the reason for having an established cohort and a new cohort as participants is not entirely clear--there does not seem to be a comparison between cohorts presented, and the aim of the study does not clearly indicate that this is a component of the research</p> <p><b>METHODS:</b> It is unclear why longitudinal interviews were done. Was the intention to review change in behaviours/opinions over time? This is not clear in the description of how the information is analysed and presented</p> <p>As a non-UK practitioner the term "commissioning" (top of page 6) is unclear and may need further explanation</p> <p>Much of the methods on p6 might be better situated in results as it describes the characteristics and demographics of the participants rather than the methods. Table one describes these demographics according to the 2 cohorts but again it is unclear why they are described separately. I wonder if mean/median/mode are all required for age range and suggest picking the most appropriate measure.</p> <p>The methods section currently includes no reference to recruitment of participants, or ethics approval. How did this occur?</p> <p>What was the reason for attending/describing the training workshop? How did this information contribute to the qualitative analysis described in paragraph 2 of the methods?</p> <p><b>RESULTS:</b> This section does not seem to discuss the longitudinal aspect of the interviews, nor make strong links between the two cohorts (see earlier comments too). For example p8 from line 32, pharmacists from both cohorts are included but there is no comment made on if</p>
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	<p>they are similar or different in their experience's and responses in the interviews</p> <p>P7 from line 47: are the "more experienced primary care pharmacists" from a particular cohort? Which is the "pathway" referred to? This term is also used for example on p8 line 29 and p11 line 46.</p> <p>Some of the commentary (eg in the section about acquiring clinical skills) relates the interview data more to experience of the the individual rather than the cohort, so is the cohort important? Or is the level of prior experience important and the cohorts do not need to be identified separately?</p> <p>The section on Consultation skills &amp; history taking workshops (p9) is more focused on content of the workshop that a qualitative analysis relating to the pharmacists perceptions--I wonder if some of this belongs in the methods? Again it is a little unclear why this aspect is included.</p> <p>What is the "Calgary Cambridge" model? Is there a reference?</p> <p>The section on "Achieving person-centredness" only includes quotes from the ARRS cohort. There is no description of the longitudinal aspect (eg how their thinking changed over time) and no description of or comparison to the other cohort. Is there a comparison to be made here?</p> <p><b>DISCUSSION:</b> This is a comprehensive discussion of relevant issues but is somewhat disjointed from the results and the title of the paper. I expected to see discussion of the longitudinal development of the cohort and some comparison between the two cohorts</p> <p><b>CONCLUSION:</b> Again, somewhat disjointed from the earlier sections and the title of the paper. Were the pharmacists "new and in training? Some of them had many years in practice?</p> <p><b>ABSTRACT:</b> Some aspects (eg conclusion) seem quite different from what is in the main paper</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Prof. Mark Harris, University of New South Wales

Comments to the Author:

This is an interesting qualitative study of participants in training for a new structured medication review in England. The paper is generally well written but there are some issues that need to be addressed:

1. The period of study was so strongly influenced by the COVID-19 Pandemic (in limiting face-to-face contact with patients) that this should be reflected in the title – the “patient facing work in primary

care” was almost entirely by telephone with “most of the new ARRS pharmacists yet to meet a patient face-to-face other than at a vaccine clinic.”

*We agree and have changed the title as follows to reflect this and to manage expectations that this is a comparative cohort study (see below): SKILLS DEVELOPMENT FOR PATIENT FACING WORK IN PRIMARY CARE: FINDINGS FROM A QUALITATIVE STUDY OF PHARMACIST ROLE EXPANSION DURING COVID-19*

2. The conduct during the Pandemic which had an impact on both the intervention (as in 1) and the data collection, should be added to the list of limitations.

*We have included the following:*

- *The COVID-19 pandemic placed limitations on pharmacists’ capacity for patient-facing work, training delivery, and data collection in primary care*

3. There needs to be an explanation of the relationship between the interviewers and the participants and their involvement (if any in the intervention).

*Clarification has been provided on the interviewers’ role in collecting data for the development of a complex intervention which aims to develop skills for person centred medication reviews in which the sensitive topic of alcohol can be addressed in a clinically appropriate way.*

4. The topic guide should be added as an appendix.

*This has now been added as an appendix.*

5. In the results it is unclear what the source of information is – observation or interviews or other sources. This applies especially to the first paragraph of “Connecting pathway to practice” lines 3-10 on page 7, the consultation skills and history taking workshop sections.

*Clarified.*

6. The 10 newly appointed ARRS pharmacists were interviewed three times between September 2020 and February 2022. However the responses are not linked to time. Was there evolution of their thinking and responses over this time?

*The rationale for the longitudinal design is now elaborated in the first paragraph of the Method. Due to waves of COVID-19 restrictions, involvement in vaccine clinics, administrative backlogs and the problematics of settling into a new role during a workforce crisis, there was relatively little change in terms of responses to person-centred practice to report over the time of this study and we have now clarified this in the discussion. Most pharmacists remained at the beginning of SMR implementation and were conducting these as quick medication checks (reported elsewhere). One ARRS pharmacist more advanced in her SMR practice is quoted reflecting on becoming more aware of what she did not know at the start. The other senior ARRS pharmacist with previous GP practice setting experience and more developed consultation skills was currently supporting newer staff in the role rather than delivering SMRs himself.*

7. Also insufficient contrast is made between the experienced 10 pharmacists and the 10 newly appointed ones. This is noted in the section on “hands on preparation” and “acquiring clinically

relevant skills” but not sufficiently in the workshops or the sections on “takeaways” and “achieving person-centredness”.

*We have made clearer throughout the distinction between being an experienced pharmacist and being experienced in working with patients in the general practice setting. We have also clarified that rather than comparison across cohorts, the key analytic focus was understanding factors impacting individual skills development for a new SMR service within the emerging primary care landscape. The more established GP cohort had experienced a pilot pathway on which the current PCPEP (including the workshops) was based. Recall of specific content on the training pathway faded for all interviewees over time. Most pharmacists in both cohorts agreed that they preferred ‘hard’ practical skills content to ‘woolly’ aspects and most took it for granted somewhat that consultation skills developed on the job. There was diversity in terms of patient-facing skills and pharmacy experience within as well as between the two cohorts. More established GP pharmacists were aware of how complex SMRs could be and this is reported in detail elsewhere.*

8. It is usual to lead into the Discussion with a summary of or reflection on the findings. The first paragraph of the Discussion is largely background that could have been given in the Introduction (although this is already quite long).

*The discussion has been extensively restructured. Some background material has been moved into the introduction.*

9. The second paragraph provides some reflections on the impact of the program and some of its limitations. It would be useful to expand on the communication skills required and how these could be better addressed in future programs.

*We make the point that introducing concepts and providing a standalone workshop is insufficient for communication skills development without further opportunity to practice and gain feedback on actual practice. The theory to practice translation challenge is now made clearer in the discussion. GP clinical supervision was mostly reactive, and the availability of senior pharmacist mentorship was patchy. This undermined opportunities for more pro-active consultation skills development in and through clinical practice. Data from this and other studies are being used to develop an intervention that provides practice-based guidance and feedback on consultation skills for SMRs in clinical practice.*

10. The COVID-19 pandemic clearly had a major impact both on the intervention and evaluation. This needs to be discussed. There is only passing reference to this in the Discussion or Conclusion.

*We have framed the article more clearly in these terms and added to the conclusion that: “Remote practice during the COVID-19 pandemic had a major impact on pathway provision, SMR implementation and conduct”.*

Reviewer: 1

Competing interests of Reviewer: Nil

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Reviewer: 2

Dr. Kirsten Galbraith, International Pharmaceutical Federation, Monash University

Comments to the Author:

Thank you for the opportunity to review this interesting paper. It is a very worthy topic of investigation but the paper needs some tightening up to ensure the reader is able to make the links suggested by the authors. In particular I found it hard to determine the longitudinal aspects of the work, and to unpick the recruitment and management of the two cohorts

*We have restructured the methods and discussion to tighten the presentation of the findings and make the flow easier for the reader to follow. This includes explaining the aims and longitudinal aspect of the work more clearly and managing expectations that this is a comparative cohort study. The focus of the study is now more accurately reflected in its title.*

BACKGROUND:

I found the use of acronyms at times confusing. Is the PCPEP an example of an "accredited pathway" referred to on p4 line 20? Is the 6-month independent prescriber training part of the ARRS or separate? How does this relate to the GPPTP? Is it recognised as an alternate training pathway for these roles? This background becomes important as the reason for having an established cohort and a new cohort as participants is not entirely clear--there does not seem to be a comparison between cohorts presented, and the aim of the study does not clearly indicate that this is a component of the research

*Yes, apologies, the NHS loves acronyms! We have restructured the material to clarify that the GPPTP pathway was a pilot on which the PCPEP was based and that we are not comparing the two cohorts directly but seeking to understand emerging clinical pharmacist SMR practice and the development of pharmacist person-centred consultation skills in primary care as a potential site for intervention. The focus is on the PCPEP and the current PCN landscape in which both cohorts are working.*

*We have clarified that protracted implementation of SMRs during the pandemic called for a longitudinal approach which followed ARRS pharmacists entering the role. The cohort previously employed by GP practices provides further context from the perspectives of pharmacists employed in a general practice setting in primary care pre-pandemic and for whom PCNs and SMRs are also new. We have clarified that these more general practice experienced pharmacists have colleagues and supervisees on the PCPEP. The majority attended a pilot (GPPTP) version of the current PCPEP pathway, except one currently attending the PCPEP with her supervisees. We have made clearer throughout the distinction between being an experienced pharmacist and being experienced in working with patients in the general practice setting.*

*We have clarified that ARRS pharmacists, who are not already prescribers, undertake 6-month prescriber training after the PCPEP is completed. This means it will usually take 2 years before a new ARRS pharmacist becomes a qualified prescriber.*

METHODS:

It is unclear why longitudinal interviews were done. Was the intention to review change in behaviours/opinions over time? This is not clear in the description of how the information is analysed and presented

*The rationale for the longitudinal design is now elaborated in the first paragraph of the Method. See also above and comments in response to reviewer 1.*

As a non-UK practitioner the term "commissioning" (top of page 6) is unclear and may need further explanation

*Explanation and a reference have been included.*

Much of the methods on p6 might be better situated in results as it describes the characteristics and demographics of the participants rather than the methods. Table one describes these demographics according to the 2 cohorts but again it is unclear why they are described separately. I wonder if mean/median/mode are all required for age range and suggest picking the most appropriate measure.

*Description of the sample achieved has been moved into the results. We have clarified that the longer employed in general practice cohort, interviewed once, provide national context for understanding the experience of pharmacists in the emerging landscape of primary care which the ARRS pharmacists (interviewed three times) are entering. Median and mode measures have been deleted.*

The methods section currently includes no reference to recruitment of participants, or ethics approval. How did this occur?

*Recruitment processes are now included. Details on ethical approval and consent to participate are provided in "Additional information"*

What was the reason for attending/describing the training workshop? How did this information contribute to the qualitative analysis described in paragraph 2 of the methods?

*We have explained that: "Direct observation of consultation training informed interview topic guides and provided empirical data on content and pharmacist participation in the workshop for triangulation with reports of consultation training in interviews."*

## RESULTS:

This section does not seem to discuss the longitudinal aspect of the interviews, nor make strong links between the two cohorts (see earlier comments too). For example p8 from line 32, pharmacists from both cohorts are included but there is no comment made on if they are similar or different in their experience's and responses in the interviews

*See above, the focus is on PCPEP, which was based on the prior pilot pathway, as a means of preparation for PCN SMR consultations. Similarities and differences in initial SMR practices are reported elsewhere in an implementation focused article. The focus here is on pharmacist's views of their own training and skills for such complex consultations.*

P7 from line 47: are the "more experienced primary care pharmacists" from a particular cohort? Which is the "pathway" referred to? This term is also used for example on p8 line 29 and p11 line 46.

*We have edited to reduce confusion about which "pathway" is being referred to and to distinguish longer experience in the general practice primary care setting from long experience in community or other forms of pharmacy.*

Some of the commentary (eg in the section about acquiring clinical skills) relates the interview data more to experience of the the individual rather than the cohort, so is the cohort important? Or is the level of prior experience important and the cohorts do not need to be identified separately?

*See above. The level of individual prior experience in a patient-facing role in a primary care setting is of key importance. The cohorts are different in terms of time and grounds on which they were employed – i.e., earlier as GP pharmacists in individual practices or under the new PCN ARRS pharmacist scheme. The former cohort of course now find themselves in PCNs working with the new recruits. Confusion at the time of implementation meant there was some initial uncertainty about whether existing GP practice pharmacists would fulfil the same roles as new ARRS PCN pharmacists.*

The section on Consultation skills & history taking workshops (p9) is more focused on content of the

workshop that a qualitative analysis relating to the pharmacists perceptions--I wonder if some of this belongs in the methods? Again it is a little unclear why this aspect is included.

*This observation forms part of the dataset. See above: "Direct observation of consultation training informed interview topic guides and provided empirical data on content and pharmacist participation in the workshop for triangulation with reports of consultation training in interviews."*

What is the "Calgary Cambridge" model? Is there a reference?

*This has been explained and a reference provided.*

The section on "Achieving person-centredness" only includes quotes from the ARRS cohort. There is no description of the longitudinal aspect (eg how their thinking changed over time) and no description of or comparison to the other cohort. Is there a comparison to be made here?

*The focus is mostly on ARRS pharmacist preparedness for complex patient facing consultations like SMRs. Where relevant we have pointed out limitations in the understanding and application of person-centredness common in both cohorts. Delays in implementation and lack of opportunity to practice meant there was little opportunity for ARRS pharmacists to change their thinking during the course of the study. This has been made clearer in the discussion.*

#### DISCUSSION:

This is a comprehensive discussion of relevant issues but is somewhat disjointed from the results and the title of the paper. I expected to see discussion of the longitudinal development of the cohort and some comparison between the two cohorts

*The discussion has been extensively restructured in the light of both reviewers' comments. The title of the paper has also changed to clarify the focus and the expectation of a discussion of the longitudinal development of the ARRS cohort and comparison between the two.*

#### CONCLUSION:

Again, somewhat disjointed from the earlier sections and the title of the paper. Were the pharmacists "new and in training? Some of them had many years in practice?

*We have made clearer the distinction between being an experienced pharmacist and having experience of patient facing work in a general practice setting throughout. New to the ARRS post and in training does not mean new to pharmacy (except for one ARRS interviewee who was pre-reg at the time of recruitment). However, all but one of the ARRS pharmacists were new to working in a general practice setting in primary care and were or had attended the PCPEP primary care training pathway. We hope we have now clarified that what is 'new' is the employment of Clinical Pharmacists in forming PCNs under the ARRS scheme and the introduction of SMRs. Pharmacists had previously been employed by some individual GP practices, more-so under the pilot GPPTP recruitment and training scheme on which the current PCPEP was based.*

#### ABSTRACT:

Some aspects (eg conclusion) seem quite different from what is in the main paper

*The abstract, including the conclusion, has been revised in the light of comments from both reviewers.*



## VERSION 2 – REVIEW

<b>REVIEWER</b>	Galbraith, Kirsten International Pharmaceutical Federation, FIPEd
<b>REVIEW RETURNED</b>	22-Jan-2023

<b>GENERAL COMMENTS</b>	<p>Thank you for the extensive revisions and responses to the reviewer questions &amp; comments. This version is vastly improved however I have some remaining comments &amp; questions (pages and line numbers refer to the track changed version).</p> <p><b>TITLE:</b>          -Acknowledging the feedback received about COVID, I'm now unsure COVID was the reason for any aspect of the intervention or if it was a hindrance to something that was already planned. Clearly it had a big impact but including it in the title made it sound to me like the role expansion was due to COVID (&amp; I don't think that's the case)          -"Skills development" suggests to me inclusion of physical examination (&amp; other) skills but the focus is really on "person centred consultation skills development" I wonder if using those words from the text, in the title, would better reflect the focus of the work (which I found hard to determine at some stages in the paper).</p> <p><b>BACKGROUND</b>          -much better but still quite dense for a non-UK reader</p> <p>-it is not clear in the first paragraph that the new "clinical patient-facing pharmacist role", and the SMR service are specifically referring to something that happens in GP practices within PCNs. More patient facing roles are also occurring in community pharmacies so I think it worth making it clearer? What are the "neighbouring practices" referred to in line 15? Does this mean a group of GP practices collaborated to form a PCN? Would they routinely have a pharmacist working in each PCN, across a number of practices? Is the ARRS just for pharmacists or it it for any allied health professional who can fulfil a necessary role to increase capacity?</p> <p>I wonder if the third paragraph might be better at the start to introduce the reader to the concept of pharmacists in GP practices, when it has been in place since, and that it has been evaluated/is evolving? What role were pharmacists playing in GP practice previous to the ARRS, was it very different?</p> <p>Line 27 uses the abbreviation GPPTP but the preceding words are "Clinical Pharmacists in General Practice pilot scheme" What does GPPTP actually stand for?</p> <p><b>METHODS:</b>          I have ongoing questions regarding the longitudinal nature of the methods/results. I appreciate the author's responses on this topic but if it is important to the paper, should the time point be reflected in the quotations in the results, so the length of time in the role and/or in the training program can be appreciated in the context of their quotes? The discussion says there was "almost no change in terms of interviewee responses to person-centred practice to report over the time of this study" however no results are presented in support of that statement.</p> <p><b>RESULTS</b></p>
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	<p>Likewise I have ongoing questions about the reporting of 2 cohorts. I appreciate the author's response that there is no comparison between the cohorts, and I note the difference in characteristics within the 2 cohorts (&amp; for example that one participant in the ARRS group had previously worked as a GP practice pharmacist). The lengthy description in the second paragraph of the methods is difficult to grasp and I wonder whether a summary of education and experience in the table would be easier to digest? Could they be described as a single "cohort" with demographics listed in the table? I note the use of the "X" in quotes from the more experienced group but it only appears a couple of times and may not warrant separating them at all? The authors have stated in their response that "the level of individual prior experience in a patient-facing role in a primary care setting is of key importance"--could/should that be reported for all participants?</p> <p>Page 8, line 19, should PCEP be PCPEP?</p> <p>P9, Line 47: I'm not clear what are "the elements of both the GPPTP and the PCPEP pathways that were led by a GP training company" Can you link this more closely to the sections on the observation of the training? What exactly does this refer to?</p> <p>P11: Consultation skills workshop observation. Thank you for your feedback about this section. Your response indicates this part of the methodology was to inform the interview topic guides and triangulate reports from the workshop. In this case would the information about the workshop be better embedded in the other sections of the results (to triangulate them), rather than a separate section describing what was done in the workshops? Otherwise a lot of the information in p11 &amp; 12 is background, describing the training, rather than the stated focus of "pharmacist's views of their own training and skills for such complex consultations"</p> <p>Thank you for your continued work in this area!</p>
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## VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Dr. Kirsten Galbraith, International Pharmaceutical Federation, Monash University

Comments to the Author:

Thank you for the extensive revisions and responses to the reviewer questions & comments. This version is vastly improved however I have some remaining comments & questions (pages and line numbers refer to the track changed version).

TITLE:

-Acknowledging the feedback received about COVID, I'm now unsure COVID was the reason for any aspect of the intervention or if it was a hindrance to something that was already planned. Clearly it had a big impact but including it in the title made it sound to me like the role expansion was due to COVID (& I don't think that's the case)

*We hope that the latest changes to the abstract and 'background' text (see below) now clarify that the PCN changes were already underway, so the pandemic was a hindrance to something that was already planned. The new role, and SMRs, require advanced assessment and history-taking skills, but the new SMR service was introduced while the new ARRS clinical pharmacists were in training, working with patients remotely due to the pandemic and experiencing wide variability in working conditions.*

- "Skills development" suggests to me inclusion of physical examination (& other) skills but the focus is really on "person centred consultation skills development" I wonder if using those words from the text, in the title, would better reflect the focus of the work (which I found hard to determine at some stages in the paper).

*We have changed the title as suggested.*

## BACKGROUND

-much better but still quite dense for a non-UK reader

-it is not clear in the first paragraph that the new "clinical patient-facing pharmacist role", and the SMR service are specifically referring to something that happens in GP practices within PCNs. More patient facing roles are also occurring in community pharmacies so I think it worth making it clearer? What are the "neighbouring practices" referred to in line 15? Does this mean a group of GP practices collaborated to form a PCN? Would they routinely have a pharmacist working in each PCN, across a number of practices? Is the ARRS just for pharmacists or it it for any allied health professional who can fulfil a necessary role to increase capacity?

*Our further changes now make it clearer in the text that the clinical patient-facing pharmacist role and the SMR service we are referring to are specifically happening in GP practices within PCNs. Full background details are covered in our other papers referenced here but we have also added further context on PCNs here to aid clarity. We have removed the phrase "neighbouring practices" and made it clearer that PCNs comprise groups of GP practices collaborating locally, including for the ARRS roles (one of which is clinical pharmacist) and SMRs. We reference the only research done to date on implementation of ARRS roles, and research done by us specifically on ARRS clinical pharmacist role implementation, which find huge variation in the way these roles have been implemented and integrated into primary care. In terms of how clinical pharmacists are located within PCNs, we have added some additional text which illustrates the variability already pointed to (and some of the reasons for this): "As unincorporated networks of practices, PCNs were not legal entities and so could not employ staff themselves. This resulted in a range of operational models; some ARRS pharmacists were working in teams shared across practices in a PCN, some were based solely in individual GP practices while others were contracted through third party agencies"*

I wonder if the third paragraph might be better at the start to introduce the reader to the concept of pharmacists in GP practices, when it has been in place since, and that it has been evaluated/is evolving? What role were pharmacists playing in GP practice previous to the ARRS, was it very different?

*We have altered earlier text and moved this paragraph as suggested to help clarify the chronological order of events. The first paragraph now includes the following to explain the different roles pharmacists have been playing in GP practices: "The move towards more clinically focused primary care pharmacist roles, consulting with and treating patients directly, co-exists with pharmacists already employed by some individual GP practices for a range of medicines optimisation work." We have also added that: "Individual GP practices were in the process of determining any distinctions between the role of ARRS clinical pharmacists and existing GP practice pharmacists"*

Line 27 uses the abbreviation GPPTP but the preceding words are "Clinical Pharmacists in General Practice pilot scheme" What does GPPTP actually stand for?

*Thanks for pointing this out. GPPTP stands for General Practice Pharmacist Training Pathway. We have altered the text to clearly differentiate this from the Clinical Pharmacists in General Practice pilot scheme and clarify the former was the training pathway for the latter.*

#### METHODS:

I have ongoing questions regarding the longitudinal nature of the methods/results. I appreciate the author's responses on this topic but if it is important to the paper, should the time point be reflected in the quotations in the results, so the length of time in the role and/or in the training program can be appreciated in the context of their quotes? The discussion says there was "almost no change in terms of interviewee responses to person-centred practice to report over the time of this study" however no results are presented in support of that statement.

*This poses the problem of presenting results that are not there! Ongoing pandemic induced limitations to patient contact in practice meant that there was very limited opportunity for practising new skills with patients, and we have now made this clear as a finding at the beginning of the 'connecting pathway to practice' section. Consultation training did not directly address what was happening in remote telephone consultations which continued to be approached in a task focused rather than person-centred manner, although as we note, after consultation skills training some pharmacists were conscious of making efforts to listen more to patients. The ARRS pharmacist (4) who is quoted talking about becoming "unconsciously incompetent" is the only one who talked clearly about how their practice had developed while in this role. We have noted this and added in that this person was employed early enough to have had some face-to-face contact with patients (outside of vaccine clinics). Another senior who had prior experience in General practice is quoted explaining why he had felt the need to do a counselling course to enhance his consultation skills. In terms of further development, this person's senior ARRS role during this study was focused on organising ARRS pharmacy staff rather than delivering SMRs or other patient-facing services.*

#### RESULTS

Likewise I have ongoing questions about the reporting of 2 cohorts. I appreciate the author's response that there is no comparison between the cohorts, and I note the difference in characteristics within the 2 cohorts (& for example that one participant in the ARRS group had previously worked as a GP practice pharmacist). The lengthy description in the second paragraph of the methods is difficult to grasp and I wonder whether a summary of education and experience in the table would be easier to digest? Could they be described as a single "cohort" with demographics listed in the table? I note the use of the "X" in quotes from the more experienced group but it only appears a couple of times and may not warrant separating them at all? The authors have stated in their response that "the level of individual prior experience in a patient-facing role in a primary care setting is of key importance"-- could/should that be reported for all participants?

*We have further clarified that the key study focus is the new ARRS role, with those already working in this setting (and therefore involved to varying degrees with the new role and SMR service), providing context. We hope the paper makes it clear that there is variability in skills and length of pharmacy experience within and across the cohorts. In terms of type of experience, we have now clearly stated that all but one of the ARRS cohort had no prior experience in a patient-facing role in a GP practice setting, whereas all the X cohort have been working in this setting with patients for some time. The lengthy description in the second paragraph has been shortened. We have included another quotation from the X cohort to evidence the use of the term "compliance".*

Page 8, line 19, should PCEP be PCPEP?

*Yes, thank you, this has been corrected*

P9, Line 47: I'm not clear what are "the elements of both the GPPTP and the PCPEP pathways that were led by a GP training company" Can you link this more closely to the sections on the observation of the training? What exactly does this refer to?

*We have changed "led" to "delivered". The 18-month pathway is designed and led by CPPE, but includes specific clinically focused workshops delivered by a GP led training company. We have not gone into further detail about these but have added in that these were "clinically focused". The consultation and history taking workshop observed was delivered by CPPE, the latter included a retired GP.*

P11: Consultation skills workshop observation. Thank you for your feedback about this section. Your response indicates this part of the methodology was to inform the interview topic guides and triangulate reports from the workshop. In this case would the information about the workshop be better embedded in the other sections of the results (to triangulate them), rather than a separate section describing what was done in the workshops? Otherwise a lot of the information in p11 & 12 is background, describing the training, rather than the stated focus of "pharmacist's views of their own training and skills for such complex consultations"

*Describing the training received and how participants in the workshops engaged with it gives important context to the pharmacist's views on the training in relation to their skills. The observation exemplifies the limited opportunity to develop practice and receive feedback on actual consultations within the training itself. The paper shows that while training equipped pharmacists to know that person-centred practice was required (in theory), they had limited awareness of how to translate this into their own everyday practice. Many continued to rely on "common sense" and had little opportunity to develop their practice through direct feedback on their interactions with patients. While all were keen to see themselves as person-centred, they described delivering traditional institutionally driven medicines focused reviews rather than person-centred practice.*

Thank you for your continued work in this area!

Reviewer: 2

Competing interests of Reviewer: nil