

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	How is the audit of therapy intensity influencing rehabilitation in inpatient stroke units in the United Kingdom? An ethnographic study
<b>AUTHORS</b>	Taylor, Elizabeth; Jones, Fiona; McKevitt, Christopher

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Sarah Tyson University of Manchester, UK
<b>REVIEW RETURNED</b>	17-May-2018

<b>GENERAL COMMENTS</b>	<p>This is an interesting and timely, albeit somewhat depressing paper examining the influence of a national audit on the delivery of stroke therapy. It is well written and the method is rigorous. I have some comments and recommendations for improvement rather than identifying fatal flaws.</p> <p>Firstly, the work was done as part of a PhD and I imagine that the data was collected and the text was written some time ago. Recently another paper has been published regarding the impact of SSNAP data collection on the delivery of stroke therapy (amongst other things). They also used an ethnographic approach with in their mixed methods: Clarke DJ, Burton LJ, Tyson SF et al (2018). Why do inpatient stroke survivors not receive the recommended amount of active therapy? A mixed-methods case-study evaluation in eight stroke units Clinical Rehabilitation e-pub 27th March 2018. <a href="https://doi.org/10.1177/0269215518765329">https://doi.org/10.1177/0269215518765329</a>. Their findings were similar in that they also found inconsistency in the way that SSNAP standards were interpreted and applied (sometimes with a suspension of common sense) and that local clinical leaders were key influencers regarding how therapy was delivered and how SSNAP was interpreted and applied. Reference to this paper needs to be included in the discussion and probably the introduction. It isn't a problem that others have published similar work, in fact it added to ones confidence in the representativeness of the findings that others have similar findings from other sites using a different theoretical lens.</p> <p>I think it would be helpful for the context of the study to include some detail of the work to try to reach a consensus on what the standard should be, and how it should be defined and applied. I don't have the reference for the consensus workshop led by the RCP to hand but it will be on google I am sure. Also SSNAP has produced detailed guidance about using the therapy standards – neither of which seem to have been noted or applied in practice.</p> <p>In the introduction, a little more detail about Powers concept of the audit society would be helpful. Presumably there is more to the theory than identifying that there has been an 'explosion' of clinical</p>
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	<p>audit in recent years.</p> <p>In the method, some further details about the nature of the data collection would be useful, what were the main topics in the interview guide? What were you looking out for during the observations?</p> <p>In the result, some details of the participants are needed to judge their representativeness. It should be perfectly possible to maintain anonymity while supplying some information about the numbers of staff, stroke survivor and family participants, their gender and age. For staff - some information about profession, grade and experience are needed and for the stroke survivor participants something about the severity/level of disability and time since stroke.</p> <p>The discussion is rather long and a lot of it is reiterating the method and the results. This isn't needed – a summary of the main headline findings will suffice. Then (succinctly) consider the main findings in light of other literature. The findings have been considered in the light of the Lipskey's and Power's theories, indicating that the findings 'fit'. But it would be useful to hear a little more about how the theories relate to practice. What do they tell us about how practice should or could be delivered? If there isn't such application then, personally I think the theories are of rather limited value, which may be something the authors wish to address.</p> <p>Finally some recommendations for clinical practice and future research are needed – how can these findings be used/ applied/ taken forwards?</p> <p>A conclusion section would be nice, unless the journal guidelines don't include this.</p>
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<b>REVIEWER</b>	Dr Caroline Ellis-Hill Senior Lecturer Faculty of Health and Social Sciences Bournemouth University UK
<b>REVIEW RETURNED</b>	28-May-2018

<b>GENERAL COMMENTS</b>	<p>In this paper the authors report a study in which the main author ET carried out observations and interviews in three stroke units to explore how therapists were implementing the 45-minute therapy guidelines associated with the UK National Clinical Guidelines for stroke. They conclude that implementation and reporting varied between sites, encouraging commissioner focused therapy rather than person centred therapy and that this was influenced by interpretation by local therapy leaders</p> <p>I have one methodological issue, many points of clarification where additional details are needed and some typographic /grammatical issues.</p> <p><b>Methodological issue</b></p> <p>The paper presents the work as an ethnographic study involving interviews and observations with staff and patients. It is difficult to see where observations are included in the findings presented. Also, there was not any reference to patient interviews or the views of patients.</p> <p>Either, these aspects should be clearly included in the findings</p>
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	<p>section and the authors clearly present how they influenced understanding; or the authors should state that they are presenting staff interview data from a larger ethnographic study and call the paper an interview study.</p> <p><b>Additional detail needed/typographic issues</b></p> <p><b>Abstract</b></p> <p>P2, line 1- use either upper case or lower case for the first letter of therapy professions -I would suggest lower case</p> <p>P2, line 16- write SU in full</p> <p>Throughout -check the use of SU and or stroke unit -I would suggest the use of 'stroke unit'</p> <p>P2, line 18, Change: 'therapists delivering it' To: the therapists delivering it'</p> <p>P2, line 20 clarification- did you undertake participant observations (ie were you working alongside staff? ) or did you carry out non-participant observations -i.e. just observed on the stroke units</p> <p>P2, line 21 Change: 'drew on Lipsky and Power' To: 'drew on the work of Lipsky and Power'</p> <p>P2, line 23 Change: 'in audit society' To: 'in an audit society'</p> <p>P2, line 25 Setting: -specify stroke units</p> <p>P2, line 29 Participants: specify which team members ( with frequency ) were interviewed by who. Specify patient interviews and nature of observations, by who, if to be included</p> <p>P2,line 34 Findings: specify how the street level bureaucracy and audit theories framed the findings</p> <p>P2 line 45, Conclusions: 'SU therapy .....</p> <p><a href="#">PubMed</a> this sentence is not needed -repetition</p> <p>P2, line 50 'Therapists interpretation of policy.....' this sentence is not needed -repetition</p> <p>P3, line 3 Change to: Furtherresearch into the roles and views of therapy leaders would enable a better understanding of implementation of guidelines and service improvement in stroke services.</p> <p>P4, line 43 'have been steady improvements' .... in what?</p> <p>P4, line 51 Change to: Despite the proliferation of data generated through the audit, there is little information about how the national policy is being interpreted or implemented locally in practice.</p> <p>P6, line 7 Change: interventions To: intervention</p> <p>P6, line 7 Change: will To: could</p> <p>P6, line 37 state the seniority of ET senior OT? Therapy manager? Also state if ET had experience of working in London stroke units and also if she had any prior or current links with the study sites -and if yes , the limitations and opportunities brought by</p>
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	<p>this. Important for context of findings produced</p> <p>P7, line 5 – I am not sure the gender of the researchers is relevant here -it is not used in the findings section , and other attributes such as age and educational status etc are not included so I feel this sentence is not needed</p> <p>P7, line 11 – Change to: Purposive and pragmatic sampling was used to select stroke units with different parameters which were considered by the team to have the potential to influence the response to the research question , allowing a wide range of perspectives.</p> <p>P7, line 13 list each parameter in detail and state why it was chosen</p> <p>P7, line 26 add therapy assistants to the list</p> <p>P7 line 26 add ‘and the patients they were working with’</p> <p>P7 line 26 change to: ‘were considered for observation’</p> <p>P8, line 3 Change to: patients working with therapists (if this was the case )</p> <p>P8, line 3 state why each of these variations in patients was important in your approach (if they were)</p> <p>P8 Separate out and explain</p> <ul style="list-style-type: none"> <li>a) how you gained initial approval to access each setting - asked managers? posters , attended staff meetings?</li> <li>b) how you gained consent for observations at each site (if using observations in findings)</li> <li>c) how you gained consent for interviews at each site</li> </ul> <p>This is important for context</p> <p>P8 clarify the overall data collection process -did you carry out observations in the unit and then do interviews? OR did you do interviews and observed particular therapists?</p> <p>P8 If using in findings: clarify what you observed. Was it the whole unit , specific sessions , how much time was spent on each ward, did you focus on certain parts of the unit?, did you attend on different days? or different time of day – explain and justify your observation processes. When did you right up your fieldnotes</p> <p>P8, line 31 Change: data was To: data were</p> <p>P8, line 31 Over time what aspects did you identify as important to capture in your fieldnotes</p> <p>P8, line 31 what was covered in the topic guide? Was this the same for all participants or did it change depending on who you talking to?</p> <p>P8, Line 33 state what transcription notation was used</p> <p>P8, line 35 -how did you use NVivo in the analysis</p> <p>P 8 did analysis take place at the same time or after data collection . If at the same time did it affect data collection?</p> <p>P9, line 5 at what stage was theory brought in to contribute to the</p>
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	<p>analysis</p> <p>P9, line 9 how was data analysis was discussed with members of research groups, stroke survivors and participants in the research.</p> <p>P9, line 43 Change 'is used' To: 'can be used'</p> <p>P9, line 47 Change to: 'drew on the work of '</p> <p>P9, line 50 Change to 'an audit society'</p> <p>P9, line 52 Change to 'of policy though direct..'</p> <p>P9 line 54 Change to : constructing therapists asstreet-level bureaucrats (SLBs), or bureaucrats working at the street level or front line, ..... (This is for additional clarification support for those not used to using this term)</p> <p>P10, line 42 change to: 'performed well on their scores'</p> <p>P10, line 42 improved scores over what time ?</p> <p>P11, line 4 specify the number of each type of participant</p> <p>P11, line 29 I would avoid the term saturation - it is more appropriate for grounded theory studies . It is not automatically a criteria of quality (ie a researcher may have just asked very narrow questions ) It is easier and more accurate to say you identified similarities and differences</p> <p>P11 line 33 'Transcripts were not returned to participants' remove this -it is not necessary here</p> <p>P11, line 33 'preliminary findings were presented to participants at each site for comment' How and when did this take place, does this include patient participants ?</p> <p>P11, line 40 The paragraph starting 'Overall, we noted that there were key differences in the delivery of therapy in each site,.....' could be presented as a list of aspects which will be discussed in more detail below</p> <p>P12, line 33 change to quantity of therapy in terms of time</p> <p>P13, line 18 Change: tension To: tensions</p> <p>P14, line 11, Change to : From SSNAP guidance, a patient's therapy time.....</p> <p>P14, line 20 change to: 100% of patients were auditable and were appropriate</p> <p>P14, line 45 Is using a male name as a pseudonym for this quote going to identify the person ??</p> <p>It may be better to use a gender-neutral name</p> <p>P22 - P 22 Discuss the strengths and limitations of the data collected and research -setting the framework and relevance of the study before moving on to further discussion -good for context</p> <p>P22, line 34 Discussion Remove text from: 'Therapists were questioned about their work ... To 'their interpretation of the guidelines and audit' This is repetition of the findings. Use the</p>
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	<p>discussion to a) highlight how your worklinks with and b) develops the previous literature. Also highlight how you have contributed to understandings around stroke service audit and implementation – you do this in the later paragraphs</p> <p>P26, line 42 Strengthen the final sentence or paragraph to give a clear 'take home message'.</p>
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<b>REVIEWER</b>	Suzie Mudge AUT University, Auckland New Zealand
<b>REVIEW RETURNED</b>	31-May-2018

<b>GENERAL COMMENTS</b>	<p>I have two main concerns about this manuscript. The first relates to the stated aim of observing participants' behaviour, however the findings are dominated by the interview findings. These findings are interesting in their own right, but do not fulfill the aim nor are they consistent with the ethnographic methods, on their own. In addition, although patients and their families were included as participants, their voice is notably absent in the findings and discussion. It is possible that they were not interviewed but only observed, however the methods appear to indicate otherwise. These two concerns impact on many items in the review checklist above.</p> <p>Ethical issues:          * You don't explicitly state the consent process for observation and adding this would be useful.          * What was the ethical process in consulting therapists about the medical or cognitive status of patient participants?</p> <p>Data Analysis          How did you determine when to stop data collection?          What strategies did you use to ensure rigour?</p> <p>Limitations          Although some limitations are stated in the bullet pointed 'strengths and limitations', none are included in the discussion.</p> <p>General but minor comments:          * Abbreviations/acronyms: suggest removing all abbreviations from abstract to make it more readable. Only one abbreviation is repeated and that is the only one that is not defined! Consider your use of acronyms throughout the manuscript as well (e.g. SLB is not well known so you might be better to always write in full, especially as you don't use it very frequently), make sure you define them on the first usage.          * Remove all commas before 'and' and 'or' in line with English grammar convention.          The reviewer also provided a marked copy with additional comments. Please contact the publisher for full details.</p>
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<b>REVIEWER</b>	Dr Josephine Gibson Senior Lecturer Faculty of Health and Wellbeing University of Central Lancashire
<b>REVIEW RETURNED</b>	05-Jun-2018

<b>GENERAL COMMENTS</b>	Thank you for the opportunity to review this most interesting paper, which utilises an ethnographic approach to unpack the delivery of
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	<p>the '45 minutes of therapy' target in stroke unit care via a combination of observational and interview data. There are some important findings which should call into question over-reliance on audit data as the sole measure of quality of care.</p> <p>I have some suggested revisions as follows:</p> <p>Strengths and limitations section: this needs to be expanded on within the body of the manuscript, in the discussion section.</p> <p>Introduction: a brief summary of the most recent range of SSNAP results for this target would be helpful contextual information. A stronger exposition is needed of the selection of the 45 minute target and its rather thin evidence base.</p> <p>Methods: research team and reflexivity: FJ's clinical background in physiotherapy should be mentioned here. Participants and recruitment: clarification is needed as to the role of the TAs - do they work across the professions or with just one profession each? p8 - 'consultant' needs to be clarified as medical consultant or otherwise. The sentence 'Prior to inviting patients...' needs rewording to clarify whose concerns were being sought.</p> <p>Results: A little more detail is needed about the sites - it is not clear whether they are purely rehab units, or combined acute/rehab. It would perhaps have been ideal to include one each that was high/mid/low performing, and the lack of a site that was currently poorly performing should be mentioned in the limitations later. it would be helpful to have a breakdown of the numbers of each type of participant (therapy staff, dr, nurse etc)</p> <p>'What counts? who counts?' I was interested to see that listening to patients' concerns was seen as a valid use of therapy time in one site. This has echoes of the recent ATTENDS trial in India (Lindley et al 2017) who found that their trial protocol to train caregivers in the home environment to give therapy was undermined by family members' needs for information and emotional support.</p> <p>I was fascinated by the statement that 'therapists don't do therapy' (p13) and would welcome some further discussion of this viewpoint that rehab does not happen in hospital, which runs counter to my and perhaps many people's view that rehab should underpin all phases of care. The conflict between the 45 min target and professionals' desire to provide care, and the pressure to 'get people home' as soon as medically stable, which is heightened by targets around length of stay, and bed shortages, is also touched upon but could be explored a little more fully.</p> <p>The way that site B only included patients as counting towards SSNAP if they were actually receiving 45 min of each therapy is evidently self-fulfilling - this point needs spelling out more clearly.</p> <p>'The quality beneath' - I note that on p17 the quote from a (I assume) a medic is attributed to 'Dr Adams', whereas all other quotes from therapists, nurses etc are given first name pseudonyms. It's not clear why this is - it would be better to use all first names or to provide a brief explanation as to the choice of pseudonyms in the methods earlier.</p> <p>p21 the quote from 'Rona' needs clarification as to what she means by 'Get them out' (presumably out of hospital to home?)</p> <p>Although the illustrative quotes come from a range of professionals, there are none from patients or from nurses - it would be helpful to include their perspectives as well if possible.</p> <p>The discussion is well written but as mentioned before, a summary of the strengths and limitations of the study would be useful here.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer Comments	Author Response
<p>Reviewer 1:</p> <p>Reviewer Name: Sarah Tyson</p> <p>This is an interesting and timely, albeit somewhat depressing paper examining the influence of a national audit on the delivery of stroke therapy. It is well written and the method is rigorous. I have some comments and recommendations for improvement rather than identifying fatal flaws.</p> <p>Firstly, the work was done as part of a PhD and I imagine that the data was collected and the text was written some time ago. Recently another paper has been published regarding the impact of SSNAP data collection on the delivery of stroke therapy (amongst other things). They also used an ethnographic approach with in their mixed methods: Clarke DJ, Burton LJ, Tyson SF et al (2018). Why do inpatient stroke survivors not receive the recommended amount of active therapy? A mixed-methods case-study evaluation in eight stroke units Clinical Rehabilitation e-pub 27th March 2018. <a href="https://doi.org/10.1177/0269215518765329">https://doi.org/10.1177/0269215518765329</a>. Their findings were similar in that they also found inconsistency in the way that SSNAP standards were interpreted and applied (sometimes with a suspension of common sense) and that local clinical leaders were key influencers regarding how therapy was delivered and how SSNAP was interpreted and applied. Reference to this paper needs to be included in the discussion and probably the introduction. It isn't a problem that others have published similar work, in fact it added to ones confidence in the representativeness of the findings that</p>	<p>Thank you for your very helpful comments on our paper. We agree with all the comments and recommendations you have made, and have made changes to the paper accordingly. Details are presented alongside your comments.</p> <ul style="list-style-type: none"> <li>As suggested, we have added reference to the paper in the discussion. We considered adding it to the introduction as well, but this did not feel right chronologically as the paper was published after our study had been completed.</li> </ul>

others have similar findings from other sites using a different theoretical lens.

I think it would be helpful for the context of the study to include some detail of the work to try to reach a consensus on what the standard should be, and how it should be defined and applied. I don't have the reference for the consensus workshop led by the RCP to hand but it will be on google I am sure. Also SSNAP has produced detailed guidance about using the therapy standards – neither of which seem to have been noted or applied in practice.

In the introduction, a little more detail about Powers concept of the audit society would be helpful. Presumably there is more to the theory than identifying that there has been an 'explosion' of clinical audit in recent years.

In the method, some further details about the nature of the data collection would be useful, what were the main topics in the interview guide? What were you looking out for during the observations?

- Thank you for this suggestion. We have added more contextual information, as recommended, and referred to the consensus workshop in the introduction. We have noted that SSNAP has produced guidance and have a helpline, and in our findings we now note that there is varying engagement with these from teams.
- We have now elaborated on Audit Society in the theoretical framework section. We hope this makes the inclusion of the theory more useful for readers who are unfamiliar with it, so we are grateful for this suggestion.
- Thank you for these suggestions. We agree that further information here would be useful. We now include the topic guides as appendices. We have added more detail about the approach to observations in data collection and analysis.
- Another reviewer was concerned about the risk that revealing the gender of participants would make them identifiable, so we have given this much thought. We agree that some information would be helpful, so we have included limited participant details as appendices.
- Thank you for this comment, which has prompted a lot of discussion amongst the authors. We have attempted to make the link between theory and the implications for practice more explicit. Having said

<p>In the result, some details of the participants are needed to judge their representativeness. It should be perfectly possible to maintain anonymity while supplying some information about the numbers of staff, stroke survivor and family participants, their gender and age. For staff - some information about profession, grade and experience are needed and for the stroke survivor participants something about the severity/level of disability and time since stroke.</p> <p>The discussion is rather long and a lot of it is reiterating the method and the results. This isn't needed – a summary of the main headline findings will suffice. Then (succinctly) consider the main findings in light of other literature. The findings have been considered in the light of the Lipskey's and Power's theories, indicating that the findings 'fit'. But it would be useful to hear a little more about how the theories relate to practice. What do they tell us about how practice should or could be delivered? If there isn't such application then, personally I think the theories are of rather limited value, which may be something the authors wish to address.</p> <p>Finally some recommendations for clinical practice and future research are needed – how can these findings be used/ applied/ taken forwards?</p> <p>A conclusion section would be nice, unless the journal guidelines don't include this.</p>	<p>this, the aim of the study and use of theory was not primarily to identify how practice needs to change, but to understand 'what goes on' and the driving forces behind this. The use of theory is valuable because it helps illuminate these driving forces and explain what drives the way that people interpret and implement the policy, as well as the unintended consequences. We agree that the discussion is long. We have attempted to cut it down and want to avoid adding more to it.</p> <ul style="list-style-type: none"> <li>• Thank you for this suggestion. We have added a conclusion section</li> </ul>
<p>Reviewer: 2 Reviewer Name: Dr Caroline Ellis-Hill</p> <p>In this paper the authors report a study in which the main author ET carried out</p>	

<p>observations and</p> <p>interviews in three stroke units to explore how therapists were implementing the 45-minute therapy</p> <p>guidelines associated with the UK National Clinical Guidelines for stroke. They conclude that</p> <p>implementation and reporting varied between sites, encouraging commissioner focused therapy</p> <p>rather than person centred therapy and that this was influenced by interpretation by local therapy leaders</p> <p>I have one methodological issue, many points of clarification where additional details are needed</p> <p>and some typographic /grammatical issues.</p> <p><b>Methodological issue</b></p> <p>The paper presents the work as an ethnographic study involving interviews and observations with</p> <p>staff and patients. It is difficult to see where observations are included in the findings presented.</p> <p>Also, there was not any reference to patient interviews or the views of patients.</p> <p>Either, these aspects should be clearly included in the findings section and the authors clearly</p> <p>present how they influenced understanding; or the authors should state that they are presenting</p> <p>staff interview data from a larger ethnographic study and call the paper an interview study.</p>	<p>Thank you very much for raising this issue. We have discussed this at length in response to your comments, and reconsidered the paper. You are quite right in pointing out that we had originally focused on the staff interview data. We have now added in more information about how the observations influenced the findings in the data collection and analysis section as well as in the findings. We have also added the findings from the patients' perspectives, which we had originally left out. We think this now makes the paper more of a complete picture of what we found, so we are very grateful to you for bringing this to our attention.</p> <ul style="list-style-type: none"> <li>• Thank you for pointing this out. We agree – we have amended to lower case throughout</li> <li>• Thank you. We agree and have replaced 'SU' with 'stroke unit' throughout the document</li> <li>• We have added 'the' as suggested</li> </ul>
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<p><b>Additional detail needed/typographic issues</b></p> <p><b>Abstract</b></p> <p>P2, line 1- use either upper case or lower case for the first letter of therapy professions -I would suggest lower case</p> <p>P2, line 16- write SU in full</p> <p>Throughout -check the use of SU and or stroke unit -I would suggest the use of 'stroke unit'</p> <p>P2, line 18, Change: 'therapists delivering it' To: the therapists delivering it'</p> <p>P2, line 20 clarification- did you undertake participant observations (ie were you working alongside staff? ) or did you carry out non-participant observations -I.e. just observed on the stroke units</p>	<ul style="list-style-type: none"> <li>• We have added more information about the role of observation in the methods and data collection and analysis sections. We have stated that the researcher was a participant observer and the membership role was peripheral observer. Your comment has highlighted that this is a potential source of confusion, so we are grateful for this comment. In the abstract we have removed the word 'participant' to avoid any confusion.</li>   <li>• Changed as suggested</li> <li>• Changed as suggested</li> <li>• Changed as suggested</li> <li>• We are constrained by the word limit for the abstract, so while we have made some of these suggested changes we are unable to include all the information you have suggested. We are very appreciative of the suggestions you have made for removal of text here, and have followed your advice.</li>   <li>• Deleted as suggested</li> <li>• Deleted as suggested</li> <li>• Changed as suggested</li>   <li>• We have added 'in therapy results'</li> <li>• Changed as suggested</li> </ul>
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<p>P2, line 21 Change: 'drew on Lipsky and Power' To: 'drew on the work of Lipsky and Power'</p> <p>P2, line 23 Change: 'in audit society' To: 'in an audit society'</p> <p>P2, line 25 Setting: -specify stroke units</p> <p>P2, line 29 Participants: specify which team members (with frequency ) were interviewed by who.</p> <p>Specify patient interviews and nature of observations, by who, if to be included</p> <p>P2,line 34 Findings: specify how the street level bureaucracy and audit theories framed the findings</p> <p>P2 line 45, Conclusions: 'SU therapy .....' this sentence is not needed - repetition</p> <p>P2, line 50 'Therapists interpretation of policy.....' this sentence is not needed - repetition</p> <p>Page 2 of 4</p> <p>P3, line 3 Change to: Further research into the roles and views of therapy leaders would enable a better understanding of</p>	<ul style="list-style-type: none"> <li>• The line numbers do not match up so we are not sure which instance you are referring to, but where we have used the plural 'interventions' we believe this is appropriate</li> <li>• Changed as suggested</li> <li>• We have added some information here as suggested.</li>   <li>• We agree and have removed it as suggested.</li>   <li>• Thank you for this suggestion. We have changed this sentence as suggested, although we have retained the word 'characteristics'.</li> <li>• We have given this suggestion consideration but feel the information given addresses the main differences we were seeking.</li>   <li>• Thank you for these suggestions. All these changes / additions have been made as suggested.</li>   <li>• Thank you for raising this question. They were not important, we were just seeking a variety of perspectives, so we have not added any further information here.</li> </ul>
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<p>P4, line 43 'have been steady improvements' .... in what?</p> <p>P4, line 51 Change to: Despite the proliferation of data generated through the audit, there is little information about how the national policy is being interpreted or implemented locally in practice.</p> <p>P6, line 7 Change: interventions To: intervention</p> <p>P6, line 7 Change: will To: could</p> <p>P6, line 37 state the seniority of ET senior OT? Therapy manager? Also state if ET had experience of working in London stroke units and also if she had any prior or current links with the study sites -and if yes , the limitations and opportunities brought by this. Important for context of findings produced</p> <p>P7, line 5 – I am not sure the gender of the researchers is relevant here -it is not used in the findings section , and other attributes such as age and educational status etc are not included so I feel this sentence is not needed</p>	<ul style="list-style-type: none"> <li>• Thank you for pointing out that more information was needed here. We hope you will feel we have now sufficiently addressed these points.</li>   <li>• Thank you for pointing out this error. We have amended.</li> <li>• We have added some information about use of fieldnotes in the methods and data collection and analysis sections. ET made fieldnotes about anything that came to mind, with no restrictions, and strove to be as comprehensive as possible.</li> <li>• Thank you for this question. We now include the topic guides in the appendices.</li>   <li>• We did not use a specific transcription notation.</li> <li>• We have added information about use of Nvivo.</li> </ul>
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<p>P7, line 11 – Change to: Purposive and pragmatic sampling was used to select stroke units with</p> <p>different parameters which were considered by the team to have the potential to influence the</p> <p>response to the research question , allowing a wide range of perspectives.</p> <p>P7, line 13 list each parameter in detail and state why it was chosen</p> <p>P7, line 26 add therapy assistants to the list</p> <p>P7 line 26 add ‘and the patients they were working with’</p> <p>P7 line 26 change to: ‘were considered for observation’</p> <p>P8, line 3 Change to: patients working with therapists (if this was the case )</p> <p>P8, line 3 state why each of these variations in patients was important in your approach (if they were)</p> <p>P8 Separate out and explain</p> <p>a) how you gained initial approval to access each setting -asked managers? posters ,</p> <p>attended staff meetings?</p> <p>b) how you gained consent for observations at each site (if using</p>	<ul style="list-style-type: none"> <li>• We have added the required information</li> <li>• We have added information about the use of theory.</li> <li>• We have added information about the use of member checking, stating that this usually occurred as a presentation followed by a discussion.</li> <li>• We have changed ‘is used’ to ‘can be used’ as suggested.</li> <li>• Thank you for all these suggested amendments, which we have made.</li>   <li>• Thank you for suggesting we give more information about participants. We are now including information about participants in appendices</li>   <li>• We have removed this term.</li>   <li>• We have removed this information about transcripts</li> <li>• We have removed this as we realise this is now a repetition of the methods section.</li> </ul>
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<p>observations in findings)0</p> <p>c) how you gained consent for interviews at each site</p> <p>This is important for context</p> <p>P8 clarify the overall data collection process -did you carry out observations in the unit and then do interviews? OR did you do interviews and observed particular therapists?</p> <p>P8 If using in findings: clarify what you observed. Was it the whole unit , specific sessions , how much time was sent on each ward, did you focus on certain parts of the unit?, did you attend on different days? or different time of day – explain and justify your observation processes. When did you right up your fieldnotes</p> <p>P8, line 31 Change: data was To: data were</p> <p>Page 3 of 4</p> <p>P8, line 31 Over time what aspects did you identify as important to capture in your fieldnotes</p> <p>P8, line 31 what was covered in the topic guide? Was this the same for all participants or did it</p>	<ul style="list-style-type: none"> <li>• Thank you for this suggestion. We have changed the paragraph to a list as you suggested.</li> <li>• Thank you – we have made these changes as suggested.</li> <li>• We chose pseudonyms that were reflective of each person’s gender and ethnicity, which does increase the risk of identification. However, other reviewers have requested additional information about the participants, including gender. We have given this much thought and having discussed this we have not moved to gender neutral names, but would be happy to take editorial advice on this. This particular quote has now been cut out to reduce the word count.</li> <li>• Thank you for this suggestion. We have added strengths and limitations at the start of the discussion.</li> <li>• Thank you for this suggestion. We have amended as per your advice.</li> <li>• Thank you for this advice. We have made some changes to the discussion but also received some positive feedback about it from other reviewers, so we did not want to change it too significantly. We hope you will feel that it has improved.</li> <li>• Upon reflection we can see that the paper needed a stronger conclusion, so thank you for pointing that out. We have now added a conclusion</li> </ul>
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<p>change depending on who you talking to?</p> <p>P8, Line 33 state what transcription notation was used</p> <p>P8, line 35 -how did you use NVivo in the analysis</p> <p>P 8 did analysis take place at the same time or after data collection . If at the same time did it affect data collection?</p> <p>P9, line 5 at what stage was theory brought in to contribute to the analysis</p> <p>P9, line 9 how was data analysis was discussed with members of research groups, stroke survivors and participants in the research.</p> <p>P9, line 43 Change 'is used' To: 'can be used'</p> <p>P9, line 47 Change to: 'drew on the work of '</p> <p>P9, line 50 Change to 'an audit society'</p> <p>P9, line 52 Change to 'of policy though direct..'</p> <p>P9 line 54 Change to : constructing therapists as street-level bureaucrats</p>	<p>section, and hope that you will find a clear take home message there.</p>
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(SLBs), or bureaucrats

working at the street level or front line,  
..... (This is for additional clarification  
support for those not  
used to using this term)

P10, line 42 change to: 'performed well  
on their scores'

P10, line 42 improved scores over what  
time ?

P11, line 4 specify the number of each  
type of participant

P11, line 29 I would avoid the term  
saturation - it is more appropriate for  
grounded theory studies .

It is not automatically a criteria of quality  
(ie a researcher may have just asked  
very narrow  
questions ) It is easier and more  
accurate to say you identified  
similarities and differences

P11 line 33 'Transcripts were not  
returned to participants' remove this -it  
is not necessary here

P11, line 33 'preliminary findings were  
presented to participants at each site  
for comment' How and  
when did this take place, does this  
include patient participants ?

P11, line 40 The paragraph starting 'Overall, we noted that there were key differences in the delivery

of therapy in each site,.....' could be presented as a list of aspects which will be discussed in more

detail below

P12, line 33 change to quantity of therapy in terms of time

P13, line 18 Change: tension To: tensions

P14, line 11, Change to : From SSNAP guidance, a patient's therapy time.....

P14, line 20 change to: 100% of patients were auditable and were appropriate

P14, line 45 Is using a male name as a pseudonym for this quote going to identify the person ??

Page 4 of 4

It may be better to use a gender-neutral name

<p>P22 - P 22 Discuss the strengths and limitations of the data collected and research -setting the framework and relevance of the study before moving on to further discussion - good for context</p> <p>P22, line 34 Discussion Remove text from: 'Therapists were questioned about their work ... To 'their interpretation of the guidelines and audit' This is repetition of the findings.</p> <p>Use the discussion to a) highlight how your work links with and b) develops the previous literature. Also highlight how you have contributed to understandings around stroke service audit and implementation – you do this in the later paragraphs</p> <p>P26, line 42 Strengthen the final sentence or paragraph to give a clear 'take home message'.</p> <p>I hope these suggestions are helpful</p>	
<p>Reviewer: 3 Reviewer Name: Suzie Mudge</p> <p>I have two main concerns about this manuscript. The first relates to the stated aim of observing participants' behaviour, however the findings are dominated by the interview findings. These findings are interesting in their own right, but do not fulfill the aim nor are they consistent with the ethnographic methods, on their own. In addition, although patients and their</p>	<p>We are very grateful for all your comments on our paper. We found your comments to be fair and helpful. We particularly appreciate your comment on the absence of the patients' voices. We had focused on staff interviews with the aim of reducing the length of the paper, but now realise these findings and more use of the observational data are</p>

families were included as participants, their voice is notably absent in the findings and discussion. It is possible that they were not interviewed but only observed, however the methods appear to indicate otherwise. These two concerns impact on many items in the review checklist above.

Ethical issues:

\* You don't explicitly state the consent process for observation and adding this would be useful.

\* What was the ethical process in consulting therapists about the medical or cognitive status of patient participants?

Data Analysis

How did you determine when to stop data collection?

What strategies did you use to ensure rigour?

Limitations

Although some limitations are stated in the bullet pointed 'strengths and limitations', none are included in the discussion.

General but minor comments:

\* Abbreviations/acronyms: suggest removing all abbreviations from abstract to make it more readable. Only one abbreviation is repeated and that is the only one that is not defined! Consider your use of acronyms throughout the manuscript as well (e.g. SLB is not well known so you might be better to always write in full, especially as you don't use it very frequently), make sure you define them on the first usage.

\* Remove all commas before 'and' and 'or' in line with English grammar convention.

\* Additional minor comments and suggested edits on the attached file (minor comments SM.pdf).

also needed in order to offer a more complete picture.

- Thank you for pointing out this oversight. We have added much more detail about the role of observation in the study, and the processes of seeking consent and consulting staff about the suitability of patients to be approached by the researcher.

- During fieldwork at Site C it became clear that, although there were many contrasts to discover, certain themes were recurring. We completed equivalent interviews to those completed in the other sites. We have signposted better to some of the strategies to improve rigour.

- Thank you for noting this. We now include strengths and limitations at the start of the discussion.

- Thank you for this suggestion. We agree and have removed all abbreviations from the abstract, and removed the acronyms 'SU' and 'SLB' throughout the paper.

- We have removed commas that were not in line with English grammar convention.

- We are very grateful for your comments and suggested edits on the separate file. We have amended the paper accordingly. We hoped to be

	<p>able to return the PDF with replies to your comments but have been unable to save our responses onto it, so we hope you will see in the paper that your comments led to improvements.</p>
<p>Reviewer: 4</p> <p>Reviewer Name: Dr Josephine Gibson</p> <p>Please leave your comments for the authors below Thank you for the opportunity to review this most interesting paper, which utilises an ethnographic approach to unpack the delivery of the '45 minutes of therapy' target in stroke unit care via a combination of observational and interview data. There are some important findings which should call into question over-reliance on audit data as the sole measure of quality of care.</p> <p>I have some suggested revisions as follows:</p> <p>Strengths and limitations section: this needs to be expanded on within the body of the manuscript, in the discussion section.</p> <p>Introduction: a brief summary of the most recent range of SSNAP results for this target would be helpful contextual information. A stronger exposition is needed of the selection of the 45 minute target and its rather thin evidence base.</p>	<ul style="list-style-type: none"> <li>• Thank you for pointing this out. We now include strengths and limitations at the start of the discussion.</li>   <li>• Thank you for these suggestions. We hope you agree that we have now provided a stronger exposition of the background to the target. Regarding the SSNAP results, it is difficult to present these without oversimplifying them. A press release from the Stroke Association recently reported that patients were receiving on average 16 minutes therapy per day (see <a href="https://www.stroke.org.uk/newsroom#/pressrelease/lack-of-therapy-puts-stroke-survivors-recovery-at-risk-2497793">https://www.stroke.org.uk/newsroom#/pressrelease/lack-of-therapy-puts-stroke-survivors-recovery-at-risk-2497793</a> ) and this was based on SSNAP data. The latest annual SSNAP report gives the following information for therapy compliance against the target from 2013 to 2017:  Physiotherapy: 2013/2014: 54.4% 2016/2017: 79.5% Occupational therapy (OT) 2013/2014: 54.9% 2016/2017: 83.8% Speech and language therapy (SALT) 2013/2014: 25.2% 2016/2017: 49.2%.  (<a href="https://www.strokeaudit.org/Documents/AnnualReport/2016-17-SSNAP-Annual-Report.aspx">https://www.strokeaudit.org/Documents/AnnualReport/2016-17-SSNAP-Annual-Report.aspx</a>) We think that it can be misleading to report on the numbers without contextual information that would take up a lot of words, so we think it is more reasonable to summarise that SSNAP has been showing improvements but that the target is still not being met.</li> </ul>

<p>Methods: research team and reflexivity: FJ's clinical background in physiotherapy should be mentioned here.</p> <p>Participants and recruitment: clarification is needed as to the role of the TAs - do they work across the professions or with just one profession each?</p> <p>p8 - 'consultant' needs to be clarified as medical consultant or otherwise.</p> <p>The sentence 'Prior to inviting patients...' needs rewording to clarify whose concerns were being sought.</p> <p>Results: A little more detail is needed about the sites - it is not clear whether</p>	<ul style="list-style-type: none"> <li>• Thank you for pointing this out. We have added FJ's background</li> <li>• We are grateful to you for highlighting this. We have added clarification regarding TAs</li> <li>• We have added the word 'medical'</li> <li>• We have reworded this and added extra information</li> <li>• We were expecting the stroke units to define themselves in these terms (e.g. acute / rehab) but they did not, so we have tried to illustrate their differences descriptively.</li> <li>• It was initially our aim to include a high/med/low performing site, but we found this was not as simple as we had imagined. The audit presents scores for OT, PT and SLT, and the scores were not always consistent for each component. It is difficult to explain the full detail of the scores without using a lot of words, but we agree that it would be useful to include the lack of a poorly performing site in the limitations section. Therefore we have done this. Thank you for this suggestion.</li> <li>• Thank you for this suggestion. We are now including participant information in appendices</li> <li>• We really appreciate your interest in this, and are grateful for the suggestion of the ATTENDS paper</li> </ul>
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they are purely rehab units, or combined acute/rehab.

It would perhaps have been ideal to include one each that was high/mid/low performing, and the lack of a site that was currently poorly performing should be mentioned in the limitations later.

it would be helpful to have a breakdown of the numbers of each type of participant (therapy staff, dr, nurse etc)

'What counts? who counts?' I was interested to see that listening to patients' concerns was seen as a valid use of therapy time in one site. This has echoes of the recent ATTENDS trial in India (Lindley et al 2017) who found that their trial protocol to train caregivers in the home environment to give therapy was undermined by family members' needs for information and emotional support.

I was fascinated by the statement that 'therapists don't do therapy' (p13) and

which we now cite in the discussion.

- Thank you very much for these comments. We hope you will agree that we have explored this more fully in the discussion now. We would like to expand on this even more, but are mindful of the length of the paper.
- Thank you – we are glad you picked up on this. We have tried to spell this self-fulfilling prophesy out more clearly in the discussion. However, having added words in we have ended up removing some of them again due to issues with the length of the paper, so we are not able to explore all points as fully as we would like.
- We chose pseudonyms that reflected the name they were usually called / introduced themselves by. We now include an explanation as to the choice of pseudonyms in the methods section. Thank you for drawing our attention to the need to explain this.
- You are correct in your assumption, and we are grateful to you for pointing out that this was unclear. We have added '[of hospital]' here, and also added further explanation to Rona's earlier quote which we hope will help clarify this.
- Thank you for this comment, which has led to lengthy consideration. We had decided not to focus on patient perspectives in this paper, as the main focus is on the therapists, but upon reflection we realise that this information is needed in order to present a more meaningful picture. We have

would welcome some further discussion of this viewpoint that rehab does not happen in hospital, which runs counter to my and perhaps many people's view that rehab should underpin all phases of care. The conflict between the 45 min target and professionals' desire to provide care, and the pressure to 'get people home' as soon as medically stable, which is heightened by targets around length of stay, and bed shortages, is also touched upon but could be explored a little more fully.

The way that site B only included patients as counting towards SSNAP if they were actually receiving 45 min of each therapy is evidently self-fulfilling - this point needs spelling out more clearly.

'The quality beneath' - I note that on p17 the quote from a (I assume) a medic is attributed to 'Dr Adams', whereas all other quotes from therapists, nurses etc are given first name pseudonyms. It's not clear why this is - it would be better to use all first names or to provide a brief explanation as to the choice of pseudonyms in the methods earlier.

p21 the quote from 'Rona' needs clarification as to what she means by 'Get them out' (presumably out of hospital to home?)

therefore added some information about nurse and patient perspectives. In this paper, we are limited in how much extra information we can include, but we hope you will find the inclusion of some of their perspectives useful.

- We hugely appreciate this positive feedback. We have added information about the strengths and limitations. Thank you very much for your helpful review.



	AUT University Auckland New Zealand
<b>REVIEW RETURNED</b>	07-Aug-2018

<b>GENERAL COMMENTS</b>	<p>Thanks for the opportunity to re-review this paper, which is much improved and easier to follow. Just a few minor comments that are largely related to editing (line numbers refer to the marked up pages with full markup showing).</p> <p>Title: I like your new title and it is easier to understand the content. Just a small suggestion to change it from the present continuous to present (this is not a big deal, but I think it is simpler). "How does auditing (OR the audit of) therapy intensity influence stroke unit rehabilitation?"</p> <p>Abstract: Last sentence of results; suggest changing 'They' to 'Patients'</p> <p>Strengths and Limitations: second point. Is 'researchers' meant to be 'therapists'?</p> <p>Page 10, third paragraph, line 3, suggest changing 'interviewing' to 'interview'</p> <p>Page 11, first paragraph, line 1: omit 'about the' (duplication)</p> <p>Page 11, second paragraph, line 9; change 'and booking in' to 'to book'</p> <p>Page 12, second paragraph, line 3; change 'and these' to 'which' (otherwise sounds like the topic guides were recorded and transcribed)</p> <p>Page 13, paragraph 1, line 5; add comma after 'at all stages'</p> <p>Page 15, paragraph 1, line 4; no need for HASU abbreviation (not used again)</p> <p>Page 15, paragraph 1, lines 8-9; Site A can't have the highest and lowest ratio!</p> <p>Page 16, paragraph 1, line 1; remove 'it'</p> <p>Page 16, paragraph 1, line; add comma after 'third site'</p> <p>Page 22, paragraph 2, last sentence. I don't understand what 'the answer' refers to.. presumably some question; is it 'Is the patient participating in 45 min of active therapy?' or 'who is appropriate for therapy?' or something else?</p> <p>Page 22, paragraph 3, line 3. Is it the quality of therapy they provided? or a belief about therapy provided nationally? (it seems it might be the former based on a later quote)</p> <p>Page 26, paragraph 2, line 5, add comma after 'team meetings'</p> <p>Page 26, paragraph 2, line 10, add comma after 'informal discussions'</p> <p>Page 28, paragraph 5, line 1, add comma after 'all sites'</p>
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	<p>Page 31, paragraph 3, line 2; suggest omitting 'on them'</p> <p>Page 33, paragraph 2, line 9; suggest changing 'commissioners in' to 'commissioners'</p> <p>page 34, paragraph 1, line 6, SSNAP has already been defined, so you can just use acronym here</p> <p>page 36, paragraph 2, line 15; change sileod to siloed</p>
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## VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Sarah Tyson

Institution and Country: University of Manchester, UK

Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below The authors have thoroughly addressed the issues raised in my first review. The paper is clear, focused and appropriately detailed. It covers an important (if some what dispiriting) issue

*Authors' response: We are very grateful for these comments, and for the reviewers previous suggestions which we feel helped us to improve the paper significantly.*

Reviewer: 2

Reviewer Name: Dr Caroline Ellis-Hill

Institution and Country: Senior Lecturer, Faculty of Health and Social Sciences, Bournemouth University, UK

Please state any competing interests or state 'None declared': None Declared

Please leave your comments for the authors below All the changes I have suggested have been addressed, leading to a very interesting paper.

I have one small suggestion which the authors may want to consider. As Appendix B will be read as a stand alone document, the authors may like to highlight here that pseudonyms are used

*Authors' response: Thank you for these comments, and for your previous time and input which were extremely helpful in improving the paper. We have highlighted that the names used are pseudonyms, as suggested.*

Reviewer: 3

Reviewer Name: Dr Suzie Mudge

Institution and Country: AUT University, Auckland, New Zealand

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below Thanks for the opportunity to re-review this paper, which is much improved and easier to follow. Just a few minor comments that are largely related to editing (line numbers refer to the marked up pages with full markup showing).

Title: I like your new title and it is easier to understand the content. Just a small suggestion to change it from the present continuous to present (this is not a big deal, but I think it is simpler). "How does auditing (OR the audit of) therapy intensity influence stroke unit rehabilitation?"

*Authors' response: Thank you – we agree. We have now revised the title as suggested, and additional changes have been made as requested by the editor.*

Abstract: Last sentence of results; suggest changing 'They' to 'Patients'

*Authors' response: We have changed this as suggested*

Strengths and Limitations: second point. Is 'researchers' meant to be 'therapists'?

*Authors' response: Thank you for pointing this error out! We have changed it to 'participants'.*

Page 10, third paragraph, line 3, suggest changing 'interviewing' to 'interview'

*Authors' response: We have made the suggested change.*

Page 11, first paragraph, line 1: omit 'about the' (duplication)

*Authors' response: Thank you for noting this. We have omitted the duplication.*

Page 11, second paragraph, line 9; change 'and booking in' to 'to book'

*Authors' response: We have amended this as suggested.*

Page 12, second paragraph, line 3; change 'and these' to 'which' (otherwise sounds like the topic guides were recorded and transcribed)

*Authors' response: Thank you for this suggestion – amended accordingly.*

Page 13, paragraph 1, line 5; add comma after 'at all stages'

*Authors' response: We have added a comma as suggested.*

Page 15, paragraph 1, line 4; no need for HASU abbreviation (not used again)

*Authors' response: We have removed the acronym.*

Page 15, paragraph 1, lines 8-9; Site A can't have the highest and lowest ratio!

*Authors' response: We really appreciate you noticing this typo – we have corrected it.*

Page 16, paragraph 1, line 1; remove 'it'

*Authors' response: We have removed 'it' as suggested.*

Page 16, paragraph 1, line; add comma after 'third site'

*Authors' response: We have added the comma as suggested.*

Page 22, paragraph 2, last sentence. I don't understand what 'the answer' refers to.. presumably some question; is it 'Is the patient participating in 45 min of active therapy?' or 'who is appropriate for therapy?' or something else?

*Authors' response: We can see that this was not clear, and we have re-worded it to clarify the meaning.*

Page 22, paragraph 3, line 3. Is it the quality of therapy they provided? or a belief about therapy provided nationally? (it seems it might be the former based on a later quote)

*Authors' response: It was both, so we have added clarification of this.*

Page 26, paragraph 2, line 5, add comma after 'team meetings'

*Authors' response: We have added a comma as requested.*

Page 26, paragraph 2, line 10, add comma after 'informal discussions'

*Authors' response: We have added a comma as requested.*

Page 28, paragraph 5, line 1, add comma after 'all sites'

*Authors' response: We have added a comma as requested.*

Page 31, paragraph 3, line 2; suggest omitting 'on them'

*Authors' response: We have considered this suggestion, but have decided to keep the original wording as the policy was influential at higher management levels, but less so at 'street level'.*

Page 33, paragraph 2, line 9; suggest changing 'commissioners in' to 'commissioners'

*Authors' response: We have made the suggested amendment.*

page 34, paragraph 1, line 6, SSNAP has already been defined, so you can just use acronym here

*Authors' response: We have been separately advised to restate SSNAP in full the first time it is used in the discussion – we would appreciate the editor's opinion on this.*

page 36, paragraph 2, line 15; change sileod to siloed

*Authors' response: We have corrected this typo.*

*Thank you for this very thorough review of the paper, which has been extremely helpful. We also appreciate the time and input you gave to the first version.*