PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Engaging primary care physicians in system change – an interpretive qualitative study in a remote and rural health region in Northern British Columbia, Canada.
AUTHORS	Snadden, David; Reay, Trish; Hanlon, Neil; MacLeod, Martha

VERSION 1 - REVIEW

REVIEWER	Sara Kreindler University of Manitoba, Canada
REVIEW RETURNED	09-Jan-2019

GENERAL COMMENTS	This study addresses the important topic of physician engagement within the relatively underexplored area of primary care. However, certain flaws limit its potential contribution to the literature. The most significant of these are as follows: 1. The paper essentially lacks a literature review section; the abundant literature on physician engagement is touched on in one sentence in the introduction, and another couple of sentences in the discussion. The few references offered are up-to-date and appropriate, but the brevity of the treatment does not permit any depth of analysis of what is already known about how to engage physicians and what the gaps in knowledge are. Some of the past literature is quite sophisticated and nuanced, and has arguably covered the same themes as the present study, but with greater depth and/or specificity. A much more thorough examination of the literature is needed in order to demonstrate the present sub-study's potential contribution. 2. Certain key elements of the methods are unclear. (a) It is stated that the analysis took a hermeneutic approach, but there is little elaboration about how the researcher understands this approach, other than the statement that the researcher's pre-existing knowledge and assumptions were acknowledged and used to inform the analysis (which, by itself, does not distinguish the hermeneutic approach from many other qualitative approaches). Typically the hermeneutic approach is a phenomenological approach concerned with understanding participants' "lifeworlds" and the meanings they assign to their experiences. That doesn't seem to be the focus of the present study; on the contrary, the results are written as if participants' statements are an unproblematic reflection of external reality,

	rather than primarily an expression of the participants' own perceptions thereof. Clarification is needed. (b) It is stated that 34 interviews were "purposively sampled" from the 224 available interviews on the basis of their relevance to physician engagement. Were these the only interviews relevant to physician engagement? If not, on what basis did the purposive sampling take place? What made the researcher confident that the sample reflected all the different types of physicians and administrators who might have an important perspective on physician engagement? In particular, did the 10 physicians include those at varying levels of engagement in system change, or primarily "champions" whose main role was as an agent, rather than a target, of engagement efforts? Often, the agents of system change describe their "effective" engagement strategies, while the targets of those strategies understand them quite differently and dispute their effectiveness. Did the current sample give the researchers the ability to rule out this sort of situation? (c) It is stated that the analysis reached the point of saturation well before it had been completed. This concerns me; perhaps if themes had been identified with greater depth and/or specificity, the analyst would have continued to find new themes. 3. The results appear to be under-analyzed overall. Some past studies of physician engagement in primary care have identified a sequence of stages (e.g., the Reay et al. 2017 and Kreindler et al., 2014 studies that are cited) or described engagement practices and processes with high specificity (e.g., Crabtree et al., 2011, or Reay et al., 2006; 2013). The present analysis seems to stop at grouping the diverse findings into three broad thematic categories. Moreover, in the results (analysis) section, the quotations don't seem to be well-aligned to the surrounding text. In particular, many of the quotations are vague and somewhat hypothetical (or somewhat tangential to the focus on strategies for physician engagement), while much of the surrounding text contains concrete details and assertions for which no supporting data are presented. There is likely much more in the data than was identified through what appears to be a preliminary descriptive analysis. In light of these issues, it also concerns me that the analyses undertaken for this sub-study were done by only one researcher. It would have been preferable for more than one member of the study team to be directly involved in developing the initial coding framework and working through the analysis. 4. The study concludes that physician engagement takes time, and that it is important to build trusting relationships, draw on existing structures for engagement, and work through tensions constructively. While no one would disagree with these things, it is difficult to identify what novel insights this study provides beyond what is already widely known. Clarification is needed, which will also require deeper examination of prior empirical and conceptual work on physician engagement. Even the few papers that are already cited, if considered in sufficient depth, could provide useful lenses for re-examining the results.

REVIEWER	Scott Fitzpatrick University of Newcastle, Australia
REVIEW RETURNED	22-Jan-2019

GENERAL COMMENTS	The submitted manuscript deals with an important topic and is generally well written. The manuscript should be strengthened in several areas prior to its publication: 1. The introduction and interpretation sections could be better linked to give the manuscript greater cohesion, and to show how this work contributes to knowledge in rural health systems design. At present, the introduction works mainly at the level of setting the context. This is important, yet it comes at the expense of a more thorough literature review relating to the topic. I note one paragraph (p8 lines 22-35) that deals with the extant literature on reforming health systems and the role of physicians, but feel this could be expanded to provide greater scope/detail of the problems/issues. Also, the sentence starting on p8 line 31 “While physician leadership…” suggests that previous approaches have focused on certain aspects, yet that this work takes a different approach. Is this so? And if so, how did this different approach come about? What evidence supported this decision-making? Overall, the interpretation section reads very well. However, there are no clear links to literature reviewed in the introduction and, therefore, the significance of these findings in light of what is already known about the problem is not clear. For example, on p20 line 299 mention is made of traditional hierarchies and the co-creation of changed identities as a way of overcoming these issues, yet no more is said here about what this means/entails (interpretation section), and how it manifests as a problem (intro/lit review). This is one example. It is important for the authors to show how the study contributes to/or fills existing gaps in the literature. 2. The methods section could be improved. First, the section beginning p10 line 66 through to p11 line 97 would benefit from a restructure and the inclusion of subheadings such as ‘Setting; ‘Participants’; ‘Data Collection’ to help better structure and more clearly present this information. The use of the hermeneutic approach in data analysis is not adequately explained and, as such, comes across as a little superficial. The application of a hermeneutic methodology in practice is often more complex and detailed than the acknowledgement of researchers pre-understandings, and it is not clear to me how a hermeneutic methodology was applied to the analyses of texts in the study. This requires greater elaboration, or otherwise points to the use of a more straightforward thematic analysis in the actual practice of data analysis and, therefore, should be written up as such. There appears to be an inconsistency between the number of interviews conducted in the larger study and those reported in the

	manuscript. In the abstract it lists this number as 224 interviews while in the methods section it is listed as 239. This should be corrected.

VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Sara Kreindler

Institution and Country: University of Manitoba, Canada

Please state any competing interests or state ‘None declared’: None declared.

Please leave your comments for the authors below

This study addresses the important topic of physician engagement within the relatively underexplored area of primary care. However, certain flaws limit its potential contribution to the literature. The most significant of these are as follows:

1. The paper essentially lacks a literature review section; the abundant literature on physician engagement is touched on in one sentence in the introduction, and another couple of sentences in the discussion. The few references offered are up-to-date and appropriate, but the brevity of the treatment does not permit any depth of analysis of what is already known about how to engage physicians and what the gaps in knowledge are. Some of the past literature is quite sophisticated and nuanced, and has arguably covered the same themes as the present study, but with greater depth and/or specificity. A much more thorough examination of the literature is needed in order to demonstrate the present sub-study's potential contribution.

The literature review has been changed to give more detail from the cited literature and to add 3 additional relevant references to highlight the areas this study addresses.

2. Certain key elements of the methods are unclear.

(a) It is stated that the analysis took a hermeneutic approach, but there is little elaboration about how the researcher understands this approach, other than the statement that the researcher's pre-existing knowledge and assumptions were acknowledged and used to inform the analysis (which, by itself, does not distinguish the hermeneutic approach from many other qualitative approaches). Typically the hermeneutic approach is a phenomenological approach concerned with understanding participants' "lifeworlds" and the meanings they assign to their experiences. That doesn't seem to be the focus of the present study; on the contrary, the results are written as if participants' statements are an unproblematic reflection of external reality, rather than primarily an expression of the participants' own perceptions thereof. Clarification is needed.

A broader explanation of the underpinning hermeneutic stance and its relevance to this study is given. This includes the place of hermeneutics in this study and some detail on how it was applied in this study.

(b) It is stated that 34 interviews were "purposively sampled" from the 224 available interviews on the basis of their relevance to physician engagement. Were these the only interviews relevant to physician engagement? If not, on what basis did the purposive sampling take place? What made the researcher confident that the sample reflected all the different types of physicians and administrators who might have an important perspective on physician engagement? In particular, did the 10 physicians include those at varying levels of engagement in system change, or primarily "champions" whose main role was as an agent, rather than a target, of engagement efforts? Often, the agents of system change describe their "effective" engagement strategies, while the targets of those strategies understand them quite differently and dispute their effectiveness. Did the current sample give the researchers the ability to rule out this sort of situation?

This is further explained in the methods section in that all the participants engaging physicians, or being engaged as physicians were the sample in order to better understand the details of how engagement occurred and what insights could be developed from the processes of engagement that were developed in Northern BC

(c) It is stated that the analysis reached the point of saturation well before it had been completed. This concerns me; perhaps if themes had been identified with greater depth and/or specificity, the analyst would have continued to find new themes.

We agree with this point and have explained it in more detail in the article. Saturation is not a concept that sits well with a hermeneutic approach, so we have rephrased this component and added this to the methods.

3. The results appear to be under-analyzed overall. Some past studies of physician engagement in primary care have identified a sequence of stages (e.g., the Reay et al. 2017 and Kreindler et al., 2014 studies that are cited) or described engagement practices and processes with high specificity (e.g., Crabtree et al., 2011, or Reay et al., 2006; 2013). The present analysis seems to stop at grouping the diverse findings into three broad thematic categories. Moreover, in the results (analysis) section, the quotations don't seem to be well-aligned to the surrounding text. In particular, many of the quotations are vague and somewhat hypothetical (or somewhat tangential to the focus on strategies for physician engagement), while much of the surrounding text contains concrete details and assertions for which no supporting data are presented. There is likely much more in the data than was identified through what appears to be a preliminary descriptive analysis.

We have related the results to relevant literature both in the introduction and interpretation and added in some more quotes giving more detail relevant to the findings to address the comments raised here. We have also moved some quotes in order to better support the interpretation.

In light of these issues, it also concerns me that the analyses undertaken for this sub-study were done by only one researcher. It would have been preferable for more than one member of the study team to be directly involved in developing the initial coding framework and working through the analysis.

This is not what we did in practice as all authors were involved in the development of the themes and agreed the coding framework. We have explained this in more detail in the methods section.

4. The study concludes that physician engagement takes time, and that it is important to build trusting relationships, draw on existing structures for engagement, and work through tensions constructively. While no one would disagree with these things, it is difficult to identify what novel insights this study provides beyond what is already widely known. Clarification is needed, which will also require deeper examination of prior empirical and conceptual work on physician engagement. Even the few papers that are already cited, if considered in sufficient depth, could provide useful lenses for re-examining the results.

We have given more details in the interpretation section to highlight the areas where this study contributes, particularly in how engagement happens in a rural and remote primary care setting. While existing literature supports the findings, what this study has shown is not just in terms of how to deal with tensions, but how important it is to surface them in order to deal with them. This deliberate surfacing does appear to be a gap in the literature. In addition while physician structures exist in institutions, physician led structures in rural areas are not well described and the Divisions of BC which are led by the physician professional association have provided an important vehicle for coming together between Health Authority and physicians. Without it a common voice on priorities would not have appeared.

Reviewer: 2

Reviewer Name: Scott Fitzpatrick

Institution and Country: University of Newcastle, Australia

Please state any competing interests or state ‘None declared’: None declared

Please leave your comments for the authors below

The submitted manuscript deals with an important topic and is generally well written.

The manuscript should be strengthened in several areas prior to its publication:

1. The introduction and interpretation sections could be better linked to give the manuscript greater cohesion, and to show how this work contributes to knowledge in rural health systems design. At present, the introduction works mainly at the level of setting the context. This is important, yet it comes at the expense of a more thorough literature review relating to the topic. I note one paragraph (p8 lines 22-35) that deals with the extant literature on reforming health systems and the role of physicians, but feel this could be expanded to provide greater scope/detail of the problems/issues.

This issue was raised by the first reviewer and has been addressed by adding more background to the literature review and more description of findings and gaps related to primary care reform and physician engagement in rural areas, which is not well represented in the literature.

Also, the sentence starting on p8 line 31 “While physician leadership…” suggests that previous approaches have focused on certain aspects, yet that this work takes a different approach. Is this so? And if so, how did this different approach come about? What evidence supported this decision-making?

We have added more detail in the introduction to better explain this point.

Overall, the interpretation section reads very well. However, there are no clear links to literature reviewed in the introduction and, therefore, the significance of these findings in light of what is already known about the problem is not clear. For example, on p20 line 299 mention is made of traditional hierarchies and the co-creation of changed identities as a way of overcoming these issues, yet no more is said here about what this means/entails (interpretation section), and how it manifests as a problem (intro/lit review). This is one example.

It is important for the authors to show how the study contributes to/or fills existing gaps in the literature.

This area was also noted by the first reviewer. We have added to this section and linked the literature to findings and identified where this article contributes to the literature

2. The methods section could be improved. First, the section beginning p10 line 66 through to p11 line 97 would benefit from a restructure and the inclusion of subheadings such as ‘Setting; ‘Participants’; ‘Data Collection’ to help better structure and more clearly present this information.

We have restructured the methods section to include sub headings. We have also reordered the first section on context and background and provided sub-headings here too.

The use of the hermeneutic approach in data analysis is not adequately explained and, as such, comes across as a little superficial. The application of a hermeneutic methodology in practice is often more complex and detailed than the acknowledgement of researchers pre-understandings, and it is not clear to me how a hermeneutic methodology was applied to the analyses of texts in the study. This requires greater elaboration, or otherwise points to the use of a more straightforward thematic analysis in the actual practice of data analysis and, therefore, should be written up as such.

This was also identified by the first reviewer and has been addressed in the methods section.

There appears to be an inconsistency between the number of interviews conducted in the larger study and those reported in the manuscript. In the abstract it lists this number as 224 interviews while in the methods section it is listed as 239. This should be corrected.

This has been corrected

VERSION 2 – REVIEW

REVIEWER	Sara Kreindler University of Manitoba, Canada
REVIEW RETURNED	22-Feb-2019

GENERAL COMMENTS	Thank you for the work you have done to thoroughly address the comments. The methods and findings are much clearer now, as is the paper's value. I have two minor suggestions about relating the paper to the literature. - Under your first theme, you note the importance of having a "go-between" between physicians and administrators. You might want to relate this to the concept of "boundary-spanners." - Under your second theme, you note that part of the reason Divisions of Family Practice were useful is that they were physician-led and offered physicians a common voice. This seems to bear out a finding from the social identity literature: that, before two initially hostile groups can come to collaboration, they must each feel that their own group identity is secure. This idea appeared in the Kreindler et al. "Rules of Engagement" article, which you cite; it could be made explicit in your discussion. (The first authors who promoted the idea in relation to physician-management relations were Fiol et al., 2009, in "Managing Intractable Identity Conflicts"; their study was hospital-based. We also recently studied a case in which the engagement of primary care physicians suffered due to provincial decision-makers' inattention to the need to support physician identity ["Pushing for Partnership, on EarlyCite in JHOM]. I'll leave it up to you whether to cite either of these, but you might be interested, particularly given the dearth of research on the engagement of primary care physicians.) One tiny additional thing that jumped out at me: on p. 22, I know what you mean by "often unaware," but in fact it's the physicians who are unaware (of their power), not the power that is unaware, so it would be good to rephrase for precision.

REVIEWER	Scott Fitzpatrick Centre for Rural and Remote Mental Health, The University of Newcastle, Australia
REVIEW RETURNED	24-Feb-2019

GENERAL COMMENTS	Revisions have been carried out in accordance with recommendations set out in the reviews. The paper is greatly improved as a result of the authors' revisions. I recommend the paper be accepted fro publication.

VERSION 2 – AUTHOR RESPONSE

I have two minor suggestions about relating the paper to the literature.

- Under your first theme, you note the importance of having a "go-between" between physicians and administrators. You might want to relate this to the concept of "boundary-spanners."

A comment has been added in the discussion lines 489-492 and two references added.

- Under your second theme, you note that part of the reason Divisions of Family Practice were useful is that they were physician-led and offered physicians a common voice. This seems to bear out a finding from the social identity literature: that, before two initially hostile groups can come to collaboration, they must each feel that their own group identity is secure. This idea appeared in the Kreindler et al. "Rules of Engagement" article, which you cite; it could be made explicit in your discussion. (The first authors who promoted the idea in relation to physician-management relations were Fiol et al., 2009, in "Managing Intractable Identity Conflicts"; their study was hospital-based. We also recently studied a case in which the engagement of primary care physicians suffered due to provincial decision-makers' inattention to the need to support physician identity ["Pushing for Partnership, on EarlyCite in JHOM]. I'll leave it up to you whether to cite either of these, but you might be interested, particularly given the dearth of research on the engagement of primary care physicians.)

This has been dealt with in the discussion section lines 458 – 464 with a comment and a reference to the literature cited in the introduction and an additional reference as recommended in the review.

One tiny additional thing that jumped out at me: on p. 22, I know what you mean by "often unaware," but in fact it's the physicians who are unaware (of their power), not the power that is unaware, so it would be good to rephrase for precision.

The language has been altered as suggested, lines 445 – 447