Author’s response to reviews

Title: Working towards a better understanding of type 2 diabetes care organization with First Nations communities: A Qualitative Assessment

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Author’s response to reviews:

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Dr. Olivier Bruyere
Co-Editor-in-Chief
Archives of Public Health

Re: Working towards a better understanding of type 2 diabetes care organization with First Nations communities: A Qualitative Assessment (AOPH-D-19-00174)

Dear Dr. Bruyere:

We appreciate you and the reviewers’ for reviewing our manuscript and for providing us with the opportunity to strengthen the reporting of our study. Please accept our revised manuscript for your consideration for publication in Archives of Public Health, as a “Research Article”.

As per your instructions, we have responded to the reviewers’ comments point-by-point below and we have highlighted changes in the manuscript in yellow.

Reviewer #1 comments:

RESPONSE: We thank the reviewer for the opportunity to strengthen the reporting of our study.

Abstract:

1. Is 'patient' the correct term to be used? - ‘a person living with diabetes'?
RESPONSE: We thank the reviewer for their recommendation. We have changed the term “patients” to “people living with type 2 diabetes” where appropriate in the abstract (pg 3, line 60 and pg 4, lines 70-71).

2. The background section contains some methodological aspects. Furthermore, the aim of this study is not clear - need to clarify why you are doing this work?

RESPONSE: There are no methodological aspects discussed in the Background section. To clarify the aim of the study, we revised the following sentence: The aim of this study was to qualitatively assess the organization of type 2 diabetes care in participating communities in Alberta, Canada, at baseline prior to implementing RADAR (pg 3, lines 51-53).

3. Qualitative description is generally used to describe findings as it is (though some analysis is allowed) - Were findings described here directly from data collected or as a result of analysis? Could include some findings here?

RESPONSE: We state in the abstract under Methods that we used content analysis to analyze the data collected (pg 3, line 58). We report the findings of this study in the Results section.

4. The recommendations in conclusion - is the methodology used (qualitative description), a suitable method to make these conclusions? May need to justify.

RESPONSE: We believe that the methodology used is appropriate to make our recommendation to modify the 5R framework used to guide clinical practice. Qualitative description is used to answer clinically relevant questions, including recommendations to better support practice.

Background:

1. Review the use of non-academic terms (e.g. staggering); A thorough proofread by an academic proof-reader or editor could help.

RESPONSE: We thank the reviewer for his/her suggestion. However, we have left our use of non-academic terms as is since this comment relates to the style of writing, rather than the content.

2. The justification for this study - why is this study important? E.g. hasn't been done before, other similar publications are not comparable etc. The aim of the study - what do you aim to learn from this exercise?

RESPONSE: We thank the reviewer for the opportunity to provide further detail about the aim and justification for this study. To address this concern, we have added the following sentences:

For this study, we aimed to qualitatively assess the organization of type 2 diabetes (T2D) care in participating First Nations communities at baseline prior to implementing RADAR. Little is known about how T2D care is organized within the context of First Nations communities in
Alberta. This information is vital to implementing quality improvement interventions like RADAR and to contextualize the findings for the larger controlled trial study. For example, we would not expect a change in outcomes because of RADAR if T2D care was organized in these communities using the 5Rs approach prior to implementing RADAR. (pg 6, lines 122-128).

Methods:

1. Study design - why do you think qualitative description (QD) is suitable here? What conditions have been met to use such methodology? Was the study planned from the beginning to use QD?? Who were the targeted stakeholders and is QD a suitable method to describe their ideas?

RESPONSE: To address the reviewer’s concern, we have included a sentence to explain why qualitative description is suitable for this study: Qualitative description is appropriate when the goal is to produce a summary of a phenomenon, such as the organization of care (pg 7, lines 133-134). Indeed, we designed the study from the beginning to use qualitative description, as this methodology was appropriate to achieve our research aim (i.e. to describe the organization of type 2 diabetes care in participating First Nations communities prior to implementing RADAR). We believe that qualitative description is a suitable method to describe the ideas of health care workers as this method was developed to address problems of clinical relevance.

Setting:

1. The description of the electronic system could be done completely and comprehensively in the background section alone. Currently it is dispersed across the article.

RESPONSE: With respect, we have decided to leave the description of the electronic system as is. We have provided a concise description of the system in the background section. We selectively describe additional detail about the system in other sections of the article to draw the reader’s attention to salient features of the system related to the organization of diabetes care.

2. Justify further why the first 6 sites are an accurate representation of all sites.

RESPONSE: In qualitative research, findings are transferrable to similar settings and contexts, not generalizable as being representative of all sites. We have provided a description of the participating sites under “Setting”. This description allows the reader to determine the diversity of the communities involved and to determine transferability of our results to similar settings.

3. How did you estimate the number of persons living with diabetes?

RESPONSE: We thank the reviewer for the opportunity to clarify this point. We revised the following sentence to: Health managers estimated that approximately 750 people with T2D reside in the 6 communities (pg 7, lines 149-150).
4. Identify and describe the included sites - population demographics, distances, services available, geographic and other limitations for health services access - probably a table.

RESPONSE: We have provided a description of the participating sites under “Setting”. We balanced the amount of detail provided to allow readers to see the diversity of sites involved (e.g. Treaty, distance to urban centers) without providing so much detail as to identify the communities. In addition, the description of the sites is a product of this study and reported under Results.

5. Why wasn't the telephone group interview/s recorded - if detailed notes were taken, was shorthand used? Qualitative description is best suited to describe situations as they are. Could this be achieved by taking notes only? Justify.

RESPONSE: We decided in consultation with health managers at the participating sites that detailed notes would be the most appropriate means to capture data during telephone group sessions, rather than digital recording. We believe it was possible to describe the organization of diabetes care through note taking and validation of accuracy by the participants. We state, “Detailed notes were taken and validated by participants for accuracy” (pg 8, line 171-172).

6. Table 1 - how were the questions developed? Reviewed by whom? Stakeholders included? Pilot study? This table may be better suited as a supplement.

RESPONSE: We have included the interview questions as an additional file, as recommended by the reviewer (pg 8, line 170). We developed the interview questions as informed by the 5Rs approach for organizing diabetes care because our aim was to describe the organization of diabetes care.

7. Data analysis - justify use of inductive analysis in QD? Usually inductive approaches are used for theory development? May need to explain the depth of analysis if qualitative description is used as the best option methodology for this study.

RESPONSE: An inductive approach to data analysis is appropriate for qualitative studies, including qualitative description.

8. If telephone interviews were used, why not include other sites?

RESPONSE: We thank the reviewer for the opportunity to expand on our rational for the number of sites included in this study: We restricted the qualitative baseline assessment to 6 communities to balance the demands of rigor with feasibility and timeliness. The 6 communities were diverse in context offering a range of perspectives regarding the current organization of T2D care. In addition, due to the staggered implementation of the controlled trial study, the baseline assessment would have taken several more years to complete if we included all of the participating communities (pg 7, lines 144-149).

9. Justify the use of the 5R system for use in data extraction? Describe the contents of the 5R system (is it table 2?)
RESPONSE: We provided a description of the 5R approach, including the contents, in the Background section:

Diabetes Canada guidelines recommend the 5Rs approach to organizing diabetes care within a Chronic Care Model framework: Recognize (assess risk factors and screen); Register (systematically track patients); Resource (support self-management through inter-professional teams); Relay (facilitate information sharing); and Recall (timely review and reassessment) (pg 5, lines 101-105). We used the 5Rs as one strategy in data extraction because our aim was to describe the organization of diabetes care in the 6 participating sites. Table 2 provides a summary of our findings of how diabetes care was organized in the sites by the 5Rs at baseline.

10. How were the interviews stored - data safety?

RESPONSE: The data was kept on a secure server at the University of Alberta on a password-protected computer behind a locked door with on the research team having access to the data. We are happy to include this level of detail in the manuscript upon the Editor’s request.

11. How were the interviews coded - a coding structure was used in further analysis?

RESPONSE: We described under the sub-heading data analysis, LAW conducted the primary analyses using an integrated approach. First, the data was coded using the 5Rs framework. Second, we coded data not directly related to the framework. Lastly, we applied an inductive approach to identify emerging codes and concepts within, across, and outside of the 5Rs. We reviewed code definitions and emerging concepts at regular research team meetings, and discussed discrepancies to reach consensus. All data was managed with and queried using ATLAS.ti Version 8 (pg. 9, lines 175-181).

Results:

1. Describe in methodology how service details of participants were obtained.

RESPONSE: We are unclear what the reviewer meant by “how service details of participants were obtained”. We are happy to address this comment upon further clarification.

2. Lines 183-185 are probably as a result of analysis? - suited for later?

RESPONSE: The reviewer is correct that this sentence is a summary statement of our findings as a result of our analysis. Since it is a summary statement, we prefer to leave this sentence where it is.

3. Is table 2 part of results - identified from stakeholder interviews? If not, more suited for the background/methodology section where the service is described?

RESPONSE: The reviewer is correct that table 2 is a summary of the results from the group interviews. Therefore, we have included this table in the Results section.
4. Why were some of the 'R's' collapsed in reporting? Weren't the data collected according to the 5R framework?

RESPONSE: While we collected data using the 5R framework, we report our findings based on a synthesize of the findings, that is, health care workers ability to identify, track, and manage people with diabetes.

5. Within each R, a sub heading for each section could be a better method of presenting data.

RESPONSE: We included the specific 5R(s) after each sub-heading (pg 11, line 207; pg 11, line 228; and pg 13, line 271).

6. Was table 3 populated from data identified during telephone interviews? If yes, need to describe how this was done. Lines 280 to 325 - where does it fall within the 5R matrix; a subheading(s) could help.

RESPONSE: The text in lines 280-325 falls under the existing sub-heading, “Manage T2D patients (Resource &amp; Recall) (pg 13, line 271). To make this more obvious, we have removed Table 3 from the main text and included as an additional file. In addition, we have revised the title of this additional file to provide further clarification: Summary of available providers and services in communities as identified by respondents (pg 28, line 599-600).

7. Why weren't any direct quotations from stakeholders included (though not essential)?

RESPONSE: Our objective was to achieve consensus regarding the organization of diabetes care in each community; therefore, we agree with the reviewer that direct quotes are not essential in this case.

Discussion:

1. Some sentences are similar to sentences in other sections - please revise

RESPONSE: We appreciate the reviewer’s comment. However, we have strategically repeated a few sentences in the discussion section to help readers recall the most relevant information.

2. The strengths of the study has not been described.

RESPONSE: We report the strengths of this study on pg 20, lines 414-418.

3. Site specific issues in Indigenous studies: how can these affect the service model - you have mentioned briefly - could expand
RESPONSE: We appreciate the reviewer’s insight into how site-specific issues could affect the service model. However, we have decided not to expand on this idea, as our primary goal was to describe the organization of T2D care prior to implementing RADAR.

Conclusion:

1. The description of the 6R service (re-imagining), could be in the discussion/or any other section. The conclusion is not very suitable to bring in new information.

RESPONSE: We describe our re-imagining of the 6R approach in the discussion section starting on pages 17-18, lines 355-363 and in Figure 1.

General comment:

1. This is a qualitative study - data collected from some stakeholders of a new electronic health system. Throughout the study, comments made by stakeholders (direct quotes) were not found. Qualitative description is primarily for describing findings as they are - can include comments made by stakeholders - to expand-on findings or analysis (though not an absolute necessity).

RESPONSE: We thank the reviewer for her or his time and thoughtful comments.

Reviewer #2 comments:

This is an interesting paper that would be beneficial to publish. I certainly would cite it.

RESPONSE: We are grateful that the reviewer found our paper beneficial and of such quality that s/he would cite it.

1. There were just a few suggestion from me to help clarify the "health workers roles".

   a. Page 9: A small paragraph explaining who the research team is would be beneficial. How many are in the team? Were there any First Nation people in the team if so please state this.

RESPONSE: We thank the reviewer for the opportunity to strengthen the reporting of our study. The 3 researchers who comprise the research team are listed as authors along with information about our affiliations (pg 1-2, lines 4-25). In addition, we have acknowledged our partners in the Acknowledgement section (pg 23, lines 470-476). We are happy to add a short biography for each author, if the Editor finds it beneficial.

   b. Page 10: Readers will probably want to know who the "Other" are
RESPONSE: To address the reviewer’s comment, we added the job titles for “other” health care workers: Types of healthcare workers included: registered nurses (8); licenced practical nurses (3); health managers (2); and other (3) (i.e. Community Health Representative, Retinal Photographer, Registered Dietician) (pg 9, lines 188-189).

c. Page 10: "Types of healthcare workers included: registered nurses (8); licenced 179 practical nurses (3); health managers (2); and other (3). Types of programs represented by 180 participating healthcare workers included: administration (3); home care (6); community health" It is not clear throughout the paper of who is conducting the assessments or the screening as you have grouped them under one heading "health workers" but the roles would be different and their access to records would also be different. It might help the reader if you were to name the workers as per their role. 181 (4); and diabetes program (3).

RESPONSE: We thank the reviewer for her/his comment and we agree that different health care workers have different roles and access to records. Our primary aim was to describe the organization of diabetes care in the participating communities. As such, we conducted group interviews with healthcare workers identified as being most involved in diabetes care to achieve consensus. Therefore, we report at the site level rather than the individual level.

d. Page 10: line 188 Is there supposed to be "of" in here?

RESPONSE: We thank the reviewer for their attention to detail. We have included the word “of” in this sentence (pg 10, line 198).

e. Page 12: The first sentence needs an explanation on why there is limited screening for health workers. Which health workers are you referring to?

RESPONSE: The previous paragraph describes the reasons for limited screening by health workers at the health centers (on pg 11, lines 207-216). Similar to our response to Reviewer #2’s comment (c) above, we report the organization of diabetes care at the site level rather than the individual level.

We hope and trust that this revision is considered both responsive and satisfactory, and we thank you in advance for your further review of our work.

Respectfully submitted on behalf of all the co-authors,

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