Author's response to reviews

Title: Factors affecting the use of patient survey data for quality improvement in the Veterans Health Administration

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Author's response to reviews: see over
Dear Professor Delnoij

Thank you for the opportunity to respond to the reviewers’ comments on our paper. As requested we set out our response and further explanations about the study below. Changes and additions to the manuscript are marked in red. We note that the extra detail suggested by reviewers 2 and 3 make the paper slightly longer. We hope this is acceptable and that the manuscript is now suitable for publication. We look forward to hearing from you.

Dr Elizabeth Davies

Reviewer 1

Minor Essential Revisions: 1) please explain how and why only 16 of the 24 potential respondents were chosen;

Response: The senior leaders who agreed to including their facilities in the study suggested the names of several staff members carrying out the same role. For example, a number of nursing staff as well as staff responsible for surveys about care areas other than surgical care, which was the focus of the study. We selected only a few staff members with the same role and those involved in surgical surveys to approach. These points have been added to the method section on page 9.

2) see clerical notes below.

Clerical issues:
1) comma missing on cover page after author Charns; 2) spaces missing after close brackets page 3 lines 4 and 6; 3) citation 22 in alternate format page 9; 4) VHA not accompanied by a full antecedent of the acronym page 12; 5) sceptical noted to be UK form page 15; 6) citation 25 first author mismatch with reference list page 20; 7) author initials not entirely standardized for each person on page 22; 8) blank line missing between references 23 and 24 on page 24.

Response: Thank you for your careful reading of our manuscript. We have corrected the format and referencing errors and use US English throughout. We explain VHA in the abstract and in the background on page 5.

Discretionary Revisions:
1) consider offering a few of the organizational and practice characteristics of the two facilities for descriptive purposes, in a manner that would not uniquely identify them;
Response:
We have explained how the geographical location differed but we did not feel we could add more about specific programs without increasing the risk that the facilities would be identified.

2) please review under 'Persistence of quality improvement staff', whether the second respondent quotation has the correct facility--it would seem to follow that this is from Facility 2 instead, from the content of the prior paragraph;

Response: Thank you. The respondent was in fact from Facility 1 and the wording has been changed to make this clearer.

3) consider discussing or contrasting the domains of potential promoters and barriers with respect to the tenets of major QI models--e.g., using the language of the Toyota Production System, it would appear that both facilities undertake QI (Continuous Improvement), but there appears to be less consistent language implying empowerment (Respect for People) across the facilities.

Response: Thank you. We think that a thorough comparison with the Toyota Production System would lengthen our already long paper. However, this is a very interesting idea which we would like to consider for a future paper.

Reviewer 2
1. In general, it is a nice study, but too thin. The main point of the manuscript is the focus of the study. Why is only the emotional support dimension focus of the study? Is the score on this dimension representative for the performance as whole?

Response: The study focuses on emotional support because previous unpublished VA analyses indicated that this dimension demonstrated consistently low scores over time and was strongly associated with veterans’ willingness to recommend facility care to others. We consider that high scores on emotional support are likely to be a good indicator of patient-centered practices within a facility. We have expanded this point in the methods section (page 7, para 2).

2. Are VA surgery facilities selected on high or low performance on one dimension? Is the same trend visible for high and low performance on other dimensions or only on the emotional support dimension?

Response: Yes, facilities were selected on the one dimension of emotional support. One facility with medium performance and two with changing performance were also selected for study. We did not explore the relationship of emotional support to all other scores as explained above.
3. Can conclusions of organizational, professional and data-related promoters or barriers, been given on only one dimension?

**Response:** We consider the promoters and barriers we have identified to the use of survey data in the VA as generic. We are not yet aware of evidence that staff respond to survey data on different dimensions of care in fundamentally different ways.

4. Another point is the methodology of the study. Why are case studies selected with stable high scores and stable low scores? An alternative way is to investigate the case which makes the most improvements and to determine which promoters and barriers were seen in this process.

**Response:** We agree and we spent some time reviewing the original spread and change in facility scores to identify informative patterns to study. Facilities with steadily improving scores were relatively rare (now added to page 8, para 2), but two facilities that had improved most clearly from low to high performance could be identified for study. However, when we broke the code it turned out that their directors had not agreed to participate.

5. Last point is the limited participation of the facilities (only two) and the small amount of interviews in the facilities. How was the internal consistency in content between interviewees.

**Response:** There did appear to be consistent content between interviewees at the same facility, and we have reported interventions or programs described by two or more respondents. However, it was not possible to triangulate findings from leaders’ interviews where they described their motivation for and experience of beginning to make change happen.

More in detail:

Abstract

6. The title ‘Rationale’ is not clear.

**Response:** This title has now been removed consistent with BMC HSR style.

7. Not only barriers were determined, also promoters were detected.

**Response:** Our study aimed to identify both barriers and promoters but respondents reported more promoters than barriers. This has been added to the abstract.

Method section

8. Give more support on your decision to choose these hypotheses. It is unclear
why these hypotheses were formulated. Please emphasize the hypotheses and relate the hypotheses to the research questions. How was the hypotheses testing done?

**Response:** The hypotheses were developed following previous studies in New York, Minnesota and The Netherlands that showed the difficulty staff can have in understanding and responding to data and the relatively modest or negative changes that were achieved. These studies suggested to us that a combination of organizational focus and support and sustained motivation and understanding of data by staff was necessary. It also seemed likely that such complex change would take several change cycles over several years to achieve. This is now explained at the end of the background (page 5, para 1). The hypotheses are now more clearly linked to the research questions in the background section and summarized in the discussion (page 5, para 2 onwards).

Results section
9. It is not clear what the culture of patient-centeredness contains.

**Response:** We have added a quote from a senior member of staff which we hope makes clear what they were trying to achieve (page 13).

10. In general, too many words are necessary which makes the result part of the manuscript ‘too slow to read’ and difficult to get the point.

**Response:** We have reviewed the results section and deleted a few words we think may be unnecessary, but we cannot identify quotes and examples that could be easily cut.

11. There is a misbalance between the use of word and the way of presentation of organizational promoters and barriers.

**Response:** Thank you for this observation. We have reviewed and edited the Organizational Barriers section to clarify the implications of the factors cited, but feel that these issues are easier to understand and require less elaboration than the Organizational Promoters. We thought that readers would benefit more from more information about the promoters than about the barriers. And, as you also note, given that the Results section is already somewhat lengthy, we elected not to add quotes and additional detail to the description of barriers.

12. The step from ‘promoters and barriers’ to ‘deducing facility performing status’ is too large. Summarize the findings in a box is alternative way, which bridged the gap.

**Response:** Thank you. The information from each facility that was used to deduce their status has now been summarized in table 2, page 21.
Discussion
13. What is meant by …we found some evidence… (p. 18)?

Response: We found some evidence for the types of support likely to be necessary for implementing and sustaining patient-centered care including the importance of leaders being motivated to develop an organizational culture that gave this priority, and of leadership linked to a coherent overall quality improvement strategy. This is now added to the first paragraph in the discussion.

14. It is not complete clear what the answers are on the goals of the study, formulated in the background.

Response: Thank you for pointing this out. The answers are now formulated more clearly in the discussion.

15. The hypotheses were not discussed clear.

Response: Thank you. We have now discussed these more clearly point by point in the discussion in relation to the goals of the study.

Discretionary Revisions:
• P.8.: Figure1. it is not a figure. Perhaps box 1?
• P.9.: enumerate the hypotheses 1) till 5).

Response: Following journal style the box has been removed and the text incorporated as a table. The hypotheses have been set out in relation to the goals.

Reviewer 3

The manuscript describes a study on experiences of the staff of two VA facilities with using patient experience data. Several promoters and barriers were identified by the participants. However, it remains unclear how these promoters and barriers are related to improvements in quality of care.

Major compulsory revisions
1. I have one big concern. The authors state that the study has 3 goals (see Rationale). In my opinion the data only allow them to answer the first question: which barriers (and promotors) health professionals and managers experience when using patient survey results. The other two questions can not be answered since only two VA facilities were included and for these facilities the scores on provided emotional support did not improve or even change over the years. This makes it impossible to link the experiences of hospital staff with improvements in
quality of care (as opposed to what is stated in the title and conclusion). The following comments are related to this main concern.

**Response:** We accept that the study could not in the end answer all our original questions. We did not predict that only two facilities would be recruited and since data collection and analysis were conducted blind to the pattern of improvement or stability in each facility, we were only aware in the final stages that neither improving facility had been included. Despite this staff at each facility described many promising initiatives and improvement efforts. We feel it is best to be honest about our hypotheses and reflect on the methodological difficulties of conducting this kind of study so they may be overcome in the future.

2. On its own question 1 is interesting enough to answer, but for me it is not clear what the study in that case adds to references no 24 and 25. I would also expect these studies to be described in the background instead of the discussion.

**Response:** Our experience is that the VA provided clearer examples of an organization in which data is provided continuously, of systematic programs for supporting the use of data and of patient-centered cultures being actively developed. This has been added to the discussion. As requested the previous references 24 and 25 are now mentioned earlier in the background.

3. The authors selected 6 facilities based on their scores on the emotional support dimension from 2002 to 2006. These 6 facilities differed on change scores and absolute level on the emotional support dimension. The rationale for precisely these 6 facilities is missing. F.i., why not also 2 stable low performers and facilities that worsened over the years?

**Response:** We have explained the choice of facility patterns of performance in response to point 4 made by reviewer 2.

4. In the end, only 2 facilities participated; 1 with stable high scores and 1 with stable low scores. Why didn’t the authors approach another group of facilities? And I miss a full reflection of the consequences of this selection bias.

**Response:** We did not have resources to extend recruitment within the timeframe of the study. We have added this in the methods and expanded our reflection about selection in the limitations section of the discussion.

Other major comments are:

5. Concerning the interview method (Methods, 5th paragraph). The selection of facilities was based on the scores on the emotional support dimension. This focus on provided emotional support is not reflected in the interview schedule. Does this have any consequences for the possibility to answer the research questions?
**Response:** Thank you for pointing out this omission. The interview schedule began by asking about patient-centered care and survey data in general. We did not focus on emotional support scores because we did not want respondents to un-blind us to the pattern of scores (if they knew them) too early in the interview. As we explain in the results many respondents spontaneously mentioned that emotional support had been the topic of improvement work. As we mention in the manuscript we probed about this then but they were not able to describe specific interventions.

6. Concerning the data-analyses (Methods, 6th paragraph): Only 1 person and coded the interviews. This is not conform scientific standards that prescribe that at least 2 people code the data and that consensus is reached in case of disagreements.

**Response:** Thank you for pointing out this omission. The second author MMM reviewed a document of comments extracted and coded by EAD for five interviews. There were no major disagreements and this point has now been added.

7. It is shown that the authors could not correctly identify the high and low performer based on the interview results. This is crucial in light of the research questions. I find the interpretation of this result in the discussion misleading (Discussion, first paragraph, last sentence).

**Response:** We have rephrased the sentence which we hope makes this less misleading.

**Discretionary revisions**

8. Who categorized something as a promoter (see Results). The coder or the participants? Only sometimes it is explicitly stated that participants described a theme as important. Is this true for all promoters?

**Response:** The researchers categorized promoters based on the framework developed and used in two previous studies (references 2 and 3). Some new ones were suggested explicitly by respondents and some were observed in the interview data.

9. Methods, 3rd paragraph: who approached the directors of the facilities? OQP staff or the authors?

**Response:** EAD approached each director by email followed by telephone call and this has been added to the methods (top of page 9).

10. Methods, 4th paragraph: the interviewer selected 16 individuals from the respondents list. How were these 16 individuals selected, based on which
criteria?

Response: Please see our reply to reviewer 1 point.

11. Methods, 4th paragraph: How were the respondents divided over the two facilities. It is interesting to know whether one facility, for instance, mainly delivered managers and the other nurses. And no physicians were included, an important actor when it comes to providing patient-centred care.

Response: The respondents in each facility are now described in the methods. It is correct to note that they were more managerial staff in facility 1. One physician suggested by Facility 2 could not be recruited.

12. Methods, Interview method: the sequence of events since 2002 were reconstructed. This is not in any way reflected in the results.

Response: The details used to do this including the time order of initiatives in relation to the study period are now made more explicit in table 2.

13. Methods, data analyses:
   a. Themes were coded according to themes identified earlier (ref no 2, 3). I would appreciate a fuller description of these themes in the background.

Response: These themes are described in detail and summarized in these references. The results section follows the same structure so we think that more detail would introduce too much repetition in this paper. We have, however, emphasized the new themes identified in this study and reviewed this section for unnecessary words as suggested by reviewer 2.

   b. What is meant by integrating a multiple perspective?

Response:

The grammatical error has been changed to make it clearer.

c. ED wrote case studies which were discussed. This process and accompanying results are not described in the results.

Response:

We did not provide detailed case studies in the paper because of concerns about revealing the identity of the facility and risking the confidentiality of VA staff within them.

d. Several hypotheses are given. I would expect these to be described in the background/rationale section. And not all hypotheses are tested in the study.
Response: We now describe how the hypotheses relate to the goals of the study in the background section, and we are clearer in the methods and the discussion about which could not be directly tested by the study.

14. The barrier that physician are sceptical towards using patient survey results (which is supported by the fact no physician was interviewed) is hardly recognized in the discussion.

Response: The skeptical response of clinicians previously described in references 2 and 3 did not emerge as strongly or as consistently here which is why we have not emphasized this finding.

15. Discussion, 1st paragraph summarizes the main results. I’m under the impression that not all of these results are described in the Results section.

Response: This section has been reviewed and the main results included.

16. Discussion, limitations: why would respondents feel uncomfortable talking to a non-US interviewer?

Response: EAD’s experience of interviewing health care staff in the US is that they express positive views about their organization and admit to skepticism less commonly than in Europe. VA staff might therefore find it uncomfortable to admit the failure of improvement efforts to a non-US European interviewer.

17. Discussion, comparison with other findings, last sentence. Previous studies did not describe the used interventions. If I’m correct this also is true for the present study, in which care the authors should acknowledge this as a limitation.

Response: Thank you for pointing out this inconsistency. The point has been changed to make it clear that there did not appear to be user involvement in the study facilities.

In sum, in its present form the manuscript is scientifically unsound on several points. The manuscript is only suitable for publication if the authors adjust their goals and conclusions according to the available data and argument that their data has added value to existing literature.

Response: We believe that the reviewers’ careful comments have together helped us make the scientific basis of the study clearer. We have argued that we need to be honest about the initial goals, not all of which it turned out could be tackled by this study. Our study adds to the literature because we have provided new information about a hitherto unstudied organization with more established and systematic processes for the use of survey data than anywhere else in the US or Europe. Our study describes promising examples of strategy and
programs used to develop patient-centered policies and throws light on some unexpected methodological problems that future studies may now avoid.