Reviewer’s report

Title: Assessing Receptiveness to Change among Primary Healthcare Providers by Adopting the Consolidated Framework for Implementation Research (CFIR)

Version: 1 Date: 03 May 2019

Reviewer: Julie Lowery

Reviewer's report:

The authors did an excellent job of addressing most of my initial concerns, including revisions to Table 2, organization of the findings to correspond to the constructs presented in Table 2, recoding several constructs, and focusing the discussion on translating the barriers and facilitators into recommendations for actionable items during implementation. A few concerns remain, but these should be relatively easy to address.

I have a lingering concern regarding the consistent use of, and appropriate distinction between, the terms "readiness", "openness", and "receptiveness." In line 61, the term "healthcare providers' receptiveness" is used; but this is defined two sentences later as "openness". I would suggest keeping the terminology consistent and using one or the other—either "openness" or "receptiveness"—to not confuse the reader. The term "receptiveness" is used repeatedly in the remainder of the manuscript; so, this term needs to be clarified. In addition, while I understand that the authors added the statement in lines 68-70 in response to my request to clarify the distinction between readiness and openness, it seems that a better distinction, based on the preceding sentences in this paragraph, as well as the definitions in the cited papers (Weiner, Wanberg and Banas), is that "readiness" is used at the organizational level, while "openness" characterizes the individual employees' perceptions. Perhaps the following statement could be substituted for lines 68-70: “Thus, both organizational readiness and individual employees' openness are important determinants of implementation success”, or something similar.

The statement (lines 76-78) is made, "The four major domains of CFIR—intervention characteristic, outer setting, inner setting and characteristics of individuals were used to practically guide systematic assessment on intervention implementation and effectiveness..." I don't believe that for purposes of this study intervention implementation and effectiveness were assessed, since the intervention was not actually implemented. Instead I believe the purpose of the study was to use the CFIR to guide assessment of organizational readiness and employee openness, as stated earlier.

Under Study Settings and Participants is the statement, "The clinics were categorized according to the population size served and service availability." It would be helpful to see the exact definition of these categories and the number of providers sampled from each category—perhaps as an addition to Table 1.
Lines 116-117 include the statement, "Information saturation is achieved when no new information can be added to HCPs' perception of change." Did the authors use this approach in their sampling strategy, which suggests that after they interviewed a certain number of providers, they stopped, because no new information was being obtained? Or was the sample size of 106 based on the number of people who responded to invitations to participate? How many people were invited to participate in interviews?

I appreciate the authors' response to my question about what new constructs were identified that were not in the CFIR—namely, that after deliberation it was determined that all themes could be categorized within existing CFIR constructs. However, I would suggest that the statement describing the results of this deliberation (statements 155-158) be moved to the Results section, rather than include this as part of the Analysis section.

I would recommend a few small changes in organization of the introduction to the Results, to improve readability:

* Move lines 169-173 (starting with "Table 2 summarizes") to immediately follow the heading, "Identified Barriers and Facilitators Based on CFIR Constructs and Sub-constructs."

* Move the statement, "Table 3 provides illustrative selected quotes..." to the very end of the paragraph, immediately before presenting the findings for each of the CFIR domains.

* Some kind of transition is needed for the statement that begins, "HCPs had expressed openness to any new interventions..." I'm not sure what this means relative to the immediately preceding statement, which mentions challenges and barriers? Is the intention, "Despite these challenges, HCPs had expressed openness..." Or if something else, please clarify.

* Similarly, I'm not sure what the following statement means: "Their readiness was based on experience and assessment of current primary healthcare clinics' settings that may facilitate the implementation of new interventions." This is a bit vague. What does "experience and assessment..." mean exactly?

It would be informative to provide some explanation of the "several activities related to NCD management" (lines 188-189) that "can facilitate the proposed plan for enhancing the NCD services." This would clarify how these activities could facilitate the design and packaging of the intervention.

I would suggest removing the phrase, "which can be contemplated as their readiness for change" in line 207. I'm not sure this follows from the observations about providers' recommendations regarding patient needs and resources.
It's not clear why the issue of clinic resources and lack of manpower mentioned under Tension for Change (lines 252-256) is included here. As stated, this "echoes the earlier issue of clinic resources", and seems that this is where it belongs—under Structural Characteristics.

The other examples included under Tension for Change are good ones; but Table 2 notes both positive and negative influences. The authors should clarify which ones are positive and which are negative. From the examples provided, it seems that the examples would be considered mostly positive, given the definition of Tension for Change. Alternatively, if the providers are satisfied with the status quo, then a tension for change doesn't exist, which would be a potential barrier (negative influence) to implementation of the proposed intervention.

I would suggest reconsideration of some of the items coded as Relative Priority. I agree that respondents' positive perception of the family doctor is a good example of Relative Priority. However, I'm not sure about the other examples provided:

* The need for time and work routine adjustments for adaptations to the practice compatibility?

* Proper training before the proposed intervention is implemented available resources?

* Provision of monetary and non-monetary reimbursements for successful tasks and achievements -> incentives and rewards?

Under Individual Characteristics, Knowledge and Belief about the Implementation, it seems that the uncertainties and fear of the impending unknown would be considered a negative influence. If so, this should be checked in Table 2, in addition to the positive influence of expectation of improved overall health outcomes.

Under Strengths and Limitations, please clarify the statement, "Therefore, the actual richness of information gathered from the focus group discussions and in-depth interviews extended beyond the CFIR constructs and domains." Also, additional explanation of the following statement would be helpful: "Considering using a mixed method approach which could counter balance the potential issues of a qualitative approach." Specifically what are the "issues" that could be addressed with a mixed method approach? Also, the authors state that they used triangulation of data sources to reduce bias. What other data sources were used besides interview responses?

Under Conclusion is the statement, "In addition, cultural and local adaptations of the implementation are very likely to happen in view of the variances of clinic setting and the
perceived community mind-set." How did this conclusion emerge from the findings? I didn't see where this was discussed previously. Consider adding one of the other significant barriers that emerged—e.g., compatibility.

In the Abstract is the statement, "Communication, goal setting and monitoring were imperative in sensitizing change." How did this conclusion emerge from the findings? I didn't see these constructs emphasized in the discussion in the actual text of the manuscript.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

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Yes

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