Author's response to reviews

Title: The relationship between baseline Organizational Readiness to Change Assessment subscale scores and implementation of hepatitis prevention services in substance use disorders treatment clinics.

Authors:

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Author's response to reviews: see over
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To: Dr. Anne Sales
   The Implementation Science Editorial Team

Thank you very much for the reviews of my manuscript titled: "The relationship between baseline Organizational Readiness to Change Assessment subscale scores and implementation of hepatitis prevention services in substance use disorders treatment clinics".

In response to your comments, as well as those of the other reviewers, I have added Table 3: Team/Clinic Demographics and Baseline and Follow-Up Implementation Scores. This table provides information on the makeup of each implementation team, the size of the participating substance use disorder clinics, and the complexity of the facilities within which the substance use disorder clinics reside. In the Discussion, I have discussed the apparent lack of a relationship between these variables and implementation outcomes. This table also presents the baseline, 1-, 3- and 6-month implementation outcome data available for each clinic. This allows the reader to determine precisely when data was collected at each site and to assess how missing data may have affected the interpretation of results. I have also substantially revised the Methods section of the paper in an effort to clarify for the reader precisely how, when, and from whom data was collected and how variables were defined. Finally, I have added a section to the Discussion on "lessons learned" in order to report on some of the ways we plan to change our data collection techniques in the future in an effort to provide guidance to others who may be undertaking similar work.

Below, I have provided detailed responses to individual reviewer comments:

**Reviewer: Ann Chou**

**MAJOR COMPULSORY REVISIONS:**

**BACKGROUND:**
- A discussion of organizational change and why it is important to the study of implementation has been added. A table of the items that make up the ORCA scales has been added (Table 1).

**METHODS**
- Information has been added on basic descriptive information on the implementation teams, the participating substance use disorder clinics, and the VA facilities in which the substance use disorders clinics reside (Table 3).
- The Methods section has been revised to clarify when, how and from whom data were collected and how variables were defined.

**DISCUSSION**
- Potential explanations for the inverse relationship between the Resources subscale and implementation outcomes have been added.
In the CONCLUSIONS section, I have attempted to strengthen the argument for the unique contribution of this study to the organizational readiness to change literature despite the limitations of the study.

MINOR ESSENTIAL REVISIONS

• A table listing ORCA items and a table describing the teams, clinics, and facilities have been added.

Reviewer: Melissa M. Farmer

MAJOR COMPULSORY REVISIONS:

1. I have attempted to clarify the focus of the article by substantially revising the BACKGROUND section to focus on the significance of organizational readiness to change to the study of implementation. I very much appreciate the reviewer pointing me toward the Weiner et al. review which allowed me to present the study in light of the lack of evidence in the field identified by the review. The description of the implementation intervention (the Liver Health Initiative training program) was moved from the METHODS section to the BACKGROUND section and the METHODS section was refocused more specifically on the ORCA measure and the measurement of implementation outcomes.

2. The main purpose of the manuscript and the hypothesis tested are now highlighted in the final paragraph of the BACKGROUND section. As described above, the METHODS section was substantially revised to provide more clarity regarding the ORCA measure and measurement of implementation outcomes. The median split of implementation outcomes scores is now more clearly defined as the main outcome measure. Given the small sample size, we were not able to control for baseline scores and state this as a limitation of the study. The Data Analysis section was revised to state the analytic strategy which was quite simple given the small sample size. Effect sizes were calculated with 95% confidence intervals which essentially allows for assessment of significance but specific tests of statistical significance were not employed.

3. On page 10 and 11, I have clarified that 11 teams enrolled in the Liver Health Initiative but that two were excluded from the study because they did not provide outcome data. On page 14, I have clarified the number of team leaders (out of 9 total) that completed the implementation outcome measure at each follow-up time point. I have also clarified that 1-month data was used for final outcome for one clinic, 3-month data was used for final outcome for 4 clinics, and 6-month data was used for final outcome for 4 clinics. Table 3 also provides all available implementation outcome data for each follow-up time point for each clinic.

4. I have also clarified that while 9 teams (with a total of 17 individuals) participated in the training program, the ORCA and the implementation outcome measure were completed only by the team leader (N=9). I have changed the language in several places throughout the paper to reflect that "team leaders completed data" rather than "clinics completed data".

5. Given the small sample size, a median split was employed to maximize the number of clinics assigned to the high and low implementation groups. While an argument could be made that implementation of five practices could also be considered "high implementation", using a different cut-point creates an even smaller "low implementation" group and more discrepant
group sizes. Determining how the cut-point affects the relationship of ORCA scores to implementation outcomes will have to wait until such time that a larger sample is available.

MINOR ESSENTIAL REVISIONS:

- The wording of the ABSTRACT was clarified to state that high implementation teams had higher scores on several ORCA subscales compared to low implementation teams.

Reviewer: Martin Charns

- Table 3 has been added to show each clinic's implementation score at each time point and their categorization as high or low implementation.
- Table 3 also includes basic information about the team members, the size of the substance use disorders clinic the team represents, and the complexity of the facilities which house the clinics.
- Table 1 has been added to show the scales, subscales, and items of the ORCA. This hopefully provides clarification as to what the Evidence subscales are measuring. They are not measuring the objective quality of the scientific evidence supporting the Liver Health Initiative recommendations but rather the subjective perception of the team leaders regarding the quality of the research evidence, the fit with clinical practice, and the fit with perceived needs of patients.

I believe that addressing the thoughtful comments of the reviewers has significantly strengthened this paper and I look forward to hearing from you in regards to this revision.

Sincerely,

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