Author's response to reviews

Title: A comparison of mental health policy and direct practice stakeholder perceptions of factors impacting evidence-based practice implementation using concept mapping

Authors:

Amy E Green (a4green@ucsd.edu)
Gregory A Aarons (gaarons@ucsd.edu)

Version: 3 Date: 6 May 2011

Author's response to reviews: see over
May 6, 2011

Denise O’ Conner, Ph.D.
Associate Editor
Implementation Science

Dear Dr. O’Connor

We are pleased to have the opportunity to submit our revised manuscript (MS: 1523426603422626) entitled “A Comparison of Policy and Direct Practice Stakeholder Perceptions of Factors Affecting Evidence-Based Practice Implementation Using Concept Mapping.” We have addressed each of your comments, including those relating to the concerns of reviewer 1, below. We also note where in the manuscript changes were made and have used track changes in the manuscript. We hope that our response has adequately addressed all concerns. Please feel free to contact me with any questions or concerns. We look forward to your decision.

Sincerely,

Gregory A. Aarons, Ph.D.
Editor Revisions related to reviewer 1:

1. Point #1 (except point iv pertaining to use of “consistent terminology” as this has already been addressed)

   There is still a little bit of work to do in this regard e.g. in the first page of the background, do authors mean ‘multiple system level’ to be the same as ‘multiple levels of stakeholders’.

   Response: These two phrases were meant to be synonymous but have been changed to “multiple levels of stakeholders” to be consistent.

   On the next page authors then talk about ‘higher system levels’ and ‘macro and micro levels’, which are further terms that need to be explained and their relationship to multiple levels of stakeholders defined.

   Response: These are terms commonly used to refer to the systems within which stakeholders operate. With macro and higher systemic levels taking place at the policy and organizational level and micro and lower system levels referring to practice and individual levels. We have amended the text to consistently use the terms “multiple levels of stakeholders” to avoid confusion for the reader and have eliminated these terms.

   Still related to terminology – what are ‘evidence based models’ (second page of background)? Do authors just mean why implementation of evidence into everyday practice hasn’t happened?

   Response: This was the intended meaning of the authors and the text has been amending in accordance with reviewer 1’s suggested phrasing.

   Again in this second page – I wonder if the term ‘difficult’ in reference to clients could be seen as pejorative. What do authors mean by this?

   Response: This term referred to the variations of challenges presented to clinicians in working with different types of clients. The term has been eliminated and replaced with “meeting the needs of a variety of clients.”

2. Point #3

   I think there still needs to be some synthesis in the background. It still does not lead the reader through what is known broadly, what is known specifically, what isn’t known to the aim of this research. For example, the sentence at the end of the second page (“The current study…”) should lead straight to the methods, but the then the background goes back into factors affecting implementation.

   Response: The sentence starting with “The current study” has been deleted as the reviewer was correct that it was incorrectly placed in the middle of the introduction
rather than in the last paragraph leading into the aims of the current study based on
gaps in the current research. We have added text in the final paragraph of the
introduction on page 7 to summarize what has been done, the gaps that remain, and the
aims of the current study.

The third and fourth page of background needs revision in terms of structure. It is unclear
why the authors talk about broad findings, i.e. categories of factors; then focus in on only
one particular study and particular factors (is this the only implementation study in mental –
I believe there are many more; or is it just one example and why was it chosen as the
example) and then return again to a discussion of categories of factors.

Response: We have revised the organization of these paragraphs so that the sections
flow from more general and broad (implementations of guidelines and innovations in
medical and organizational settings) to specific (implementation of EBPs in community
mental health) on pages 6-7. Additionally, we have added text to highlight the selection
of the mental health study described in the text (there is very little research on barriers
and facilitating factors to implementation in mental health and the study selected
comprehensively examines these factors across multiple implementation sites using
multiple EBPs) on page 7.

The results from this one study need to be analyzed further by the authors and integrated into
the background in a meaningful way. It isn’t clear how ‘implementation innovation’ relates
to implementation of EPBs? Is it a different field. Or is this what areas outside of health call
evidence implementation? Authors need to guide the readers through their background –
giving some reason for why they citing each body of background material and ensuring
logical linking between each paragraph.

Response: We believe in addressing the concerns raised in the previous comment, we
have succeeded in creating a more logical flow of the material, providing a framework
for why the mental health implementation studies were selected, adding more text to
the clarify the comprehensiveness and relatedness to the current study of the mental
health implementation research selected, and clarified EBP as a type of innovation on
page 6.

3. Point #7 (although this relates to the third, not second, sentence) The second sentence in the
second paragraph of the section ‘procedure’ in the methods is not clear. Do authors mean
‘…describing what influences the acceptance and use of…’

Response: “Describing what influences the acceptance and use of” was the intended
meaning and the text has been editing to reflect it on page 11.

4. Point #8 In the section ‘analysis’ in the methods section (which is much improved), further
clarity could be achieved by further explaining what a point map and a cluster map is and
how these two are related (or not?). Also further explanation of what the stress value means
i.e. what does it mean when the ‘multidimensional scaling solution map the original data’ well or not well, would be good.

Response: We have added text to further clarify the differences and relationships between the point map (created as part of the MDS) and cluster map (created by laying a cluster analysis on top of the MDS/point map) on page 12. We have also added text to clarify “fit” of MDS solutions on page 12. When the MDS does not fit the original data (i.e. the stress value is too high) it means that the distances of items/statements on the point map are more discrepant from the values in the square symmetrical similarity matrix. When the data maps the solution well it means that distances on the point map are the same or very similar to those from the square symmetrical similarity matrix.

5. Point #9 In the section ‘analysis’ in the methods section, further explanation of ‘pattern matching’ would help clarify why this step was necessary or added to the analysis

Response: Pattern matching occurs as part of Concept Mapping procedures. We have added text to the analysis section on page 13 to explain the process of pattern matching as well as the specific pattern matching analyses that were performed in the current study.

6. Point #12 (in relation to presenting cluster labels (para 2, p15) and descriptions (para 3, p15 ? p17) in same order and using consistent terms. Also consider clarifying descriptions of clusters as suggested by the reviewer. Further analysis is not essential.

Response: We have incorporated the reviewers request to present the clusters in a consistent order and appreciate the reviewer’s attention to discrepancies in cluster labels which should now be fixed. In regards to clarification of descriptions, the reviewer is suggesting further interpretation of the wording of verbatim statements that were created and rated by the study participants. It is not possible to accurately interpret these statements (i.e. “what is really meant by”) since they were not designed as text for additional qualitative analysis, but represent the raw data collected from our participants and utilized in our quantitative analyses. Similarly, we are unable to classify these statements categorically as either barriers or facilitating factors since they were not specifically collected in this manner and to do so would be speculating beyond the raw data.

7. Point #6 In the methods section – under the heading ‘concept mapping’ – I wonder if the section about the meeting with a smaller group of stakeholders to come up with ‘focus statements’ might be best placed in the procedure section?

Results: This change has been incorporated on page 10.

8. Point #17 The discussion contains reference to tailoring the content and delivery of EPB and implementation information and I wonder if there can be more discussion of what this means
in relation to your results. I guess if they rated things as differentially important then some things need to be emphasized for one group and other things for other groups but some examples would be good to distill your results into real life examples for the reader.

**Response:** We appreciate the reviewer’s suggestion with using specific examples from the current study to highlight areas where content may need to be tailored to different groups and have incorporated this information into the discussion section on page 21.

9. Point #11 consider (not essential) including a table summarizing demographic characteristics of participants

**Response:** We appreciate the reviewer’s suggestion and created a demographic characteristics table in an attempt to meet this request. However, given the different response categories (frequency, mean, likert rating) for the demographic variables discussed and the different sample sizes for variables (consumers did not provide information on experience implementing EBP, number of years worked in mental health, and education), we felt that this table would likely be more confusing for readers than the written text describing that data in its current format and thus have elected to not use the table format.

**Editor Revisions:**

**Abstract:**

1. Add “implementation” after EBP in the second sentence of “Results”

   **Response:** This was a typo and has been corrected.

**Background:**

2. Sentence 3 in para 2 does not make sense (...such factors....should consider....); please reword.

   **Response:** We appreciate the editor’s attention to this typo. This sentence has been revised.

3. Include “of importance and changeability for” after “ratings” in the last sentence on p5 to improve clarity.

   **Response:** This sentence has been deleted as recommended by reviewer one as it decreased the flow of the introduction.

**Methods:**

4. Include statement on study design.
Response: The study design is best described as concept mapping procedures. As such, we have revised the section heading for concept mapping to indicate study design to assist the reader in identifying the study design for the current project.

5. Include description on how participants were recruited/sampled under “Participants”

Response: More detailed information regarding the recruitment of participants was added to the “Participants” section on pages 8-9.

6. Include general description of participant eligibility criteria (e.g. criteria for policy group and practice group) but remove numbers of participants included (this belongs in Results).

Response: We have included the general criteria for group membership on page 9 and have reserved information on the number of participants in each group for the results section on page 14.

7. State what demographic variables were collected on/for participants (since these data now appear in the Results).

Response: This information is included under the “Participants” on page 9 section with the raw data in the “Results” section on page 14.

8. Under “Concept mapping” (or Procedure) outline the process used to undertake the initial “focus statement setting exercise” (i.e. that a subset of participants from the policy and practice group were invited to participate in this) and then state number who actually participated in the “Results”

Results: This information is included in the “Procedure” section on page 12 with the number who actually participated included in the “Results” on page 13.

9. Clarify how the “three examples of EBP types” were included “as prompts” for subsequent brainstorming sessions.

We have added text on page 10 of the methods section to help clarify the use of the EBP examples in the brainstorming sessions.

The description of the number of statements generated and finalized (p11) belongs in the Results. Only report the process of generating and distilling these statements in the Methods. The last 2 sentences under “Procedure” also belong in Results.

Response: The methods section has been restructured so that numbers of participants and statements are now included in the results section on pages 14-15.
10. The statistical technique “square symmetric similarity matrix” is not adequately described.

Response: We have added additional information on the creation of this matrix on pages 11-12.

11. Clarify whether the “statistical stress values” reviewed in relation to the final cluster model are the same stress values as described earlier in relation to point maps.

Response: This is the same statistical stress value but refers to the combination of the cluster analysis and MDS (from which the stress value was derived) which together create the final cluster map. We have restructured this text on page 15 under the heading “Cluster Map Creation” to help clarify, since it was unclear in its previous form.

12. Clarify how “fit” is defined -- is this a statistical term, if so define accepted ranges of good/poor fit.

Response: Fit is defined as how well the original data (the square symmetric similarity matrix input) map to the multidimensional scaling map created. The text has been edited on page 12 to clarify this. It is measured by the “stress value,” which we describe and provide acceptable values for.

13. In last sentence of para 3 on pg 13 state process of inviting all or some participants to work with the research team in defining the cluster meanings, then report number who did so in the Results (consider also clarifying in methods whether this was conducted as a group).

Response: The methods section has been restructured so that numbers of participants and statements are now included in the results section.

14. In the first sentence on pg 14, why weren’t separate maps for policy and practice groups computed for changeability? (was it that this was planned but not done since there was little difference, or not planned a prior?).

Response: This analysis was planned and these maps have been created. However, as there were such minimal differences between the two groups on ratings of changeability (see Table 2), the maps looked extremely similar. We opted not to include these tables as they require a large amount of colored page space and provided little information outside of Table 2.

15. The sentence on “double averaging” is not clear.

Response: We have restructured this sentence to provide greater clarity to the reader on page 13.

Response: We have included additional text in the analysis section of the methods on page 13 to clarify the pattern matching technique and have used the subheading “Pattern Matching” in the results section on page 19 to designate the results that were derived from pattern matching.

17. Give rationale for use of Pearson correlation over equivalent nonparametric approaches (eg. Spearman R or Kendall Tau).

Response: We have included a better description of the pattern matching on page 13. This description outlines that the data being correlated are the average ratings of clusters (0-4). Since these are interval ratings, Pearson’s correlation is the appropriate approach.

18. Also, your results report use of other statistical methods not described under “Analysis” e.g. comparing mean differences between importance and changeability ratings between policy and practice groups using t-tests. Describe in appropriate detail re. statistical test used and significance level.

Response: We have added text regarding the t-tests and effect size measures to the “Analysis” section on page 13.

Results:

19. Add “for the 14 cluster solution” to the end of the first sentence in para 2 on pg 17 for clarity.

Response: This text addition was included.

20. Make use of terminology consistent re. “cluster map” and “concept map” throughout text.

Response: While the terms are interchangeable in the literature, we recognize the confusion it might cause to readers and have used “cluster map” (when describing the cluster analysis mapping of the statement MDS points) or “cluster rating map” (when describing the overlaying of importance and changeability ratings on the cluster map) solely to describe the cluster map.

21. Make presentation of Results consistent with Methods. e.g. in Results (esp detail on p18) you make statements about “similarity in importance” that are not based on approaches reported in Methods (also incorrectly state Five of the six clusters - isn’t there 14 clusters? If similarity (or difference) is based on the results of the t-test and p value, then shouldn’t you say that only 2 clusters were statistically different, eg. clinical perceptions
and impact on clinical practice? Please rewrite the Results to make consistent with Methods.

Response: We have worked to make the methods section match the results section better by incorporating information about the pattern matching analyses and mean difference (t-test) analyses on page 13. We have also provided additional subheadings in the Results section to increase readability. In regards to the text stating that five of the six most important clusters were similar between the two organizations: 1) this statement was intended to represent the fact that most of the top ranked importance clusters were in the top ranks in both policy and practice groups 2) this information is primarily descriptive based on the rank order; however, we have now incorporated text stating that the mean ratings for clusters were also ranked from most to least important among the two groups. Additional information about the similarities is also now included under the pattern matching description on page 13.

22. Tables: the numbers of participants in the policy and practice groups in Tables 1 and 2 (policy n=17, practice n=14) are not consistent with numbers in the text (policy n=16, practice n=15). Does this reflect a difference in categorization of participants (and hence require a re-analysis of the data) or is this a typographical error?

Response: This was a typographical error. The data and sample sizes in the tables and cluster maps were correct; however, the sample sizes listed in the methods section were incorrectly typed. We have corrected the sample sizes in the text and appreciate the editor’s attention to this error.

23. Figures: make cluster labels consistent with text and additional file.

Response: We have used the labels from our original files, as they represent the original creation of the cluster naming and have revised any discrepancies in the article text, tables, and figures to ensure that the exact wording is matched.

Other discretionary (non essential) revisions:

1. Title: consider including the study design (this may have previously been included as a colon still appears after “implementation”).

Response: We have added the phrase “Using Concept Mapping” to the title.

2. Results: Consider presenting the stress values for other cluster solutions in a table (you have not made the process of deciding on the final solution transparent, this would be a useful addition).
Response: We have worked to further clarify the differences between MDS and cluster analysis and how each process is conducted in the analyses section and to present the results more clearly in the Results section to help the reader understand the process of creating these maps.

3. Consider including a table of importance and changeability ratings for all participants for the 14 cluster solution (as some of this information is referred to in the last para of the Results, but more detail on the overall rankings and mean values would be informative).

Response: As the current study focuses on similarities and differences between the two groups, we have not focused on the overall ratings. The information in this last paragraph related to pattern matching and has now been outlined more clearly in the methods on page 13 to help frame these data.

4. Discussion: Consider making reference to specific limitations regarding how the statements were generated and ranked: (a) different participants (not in sample) could have generated different statements and rated them differently in terms of their importance and changeability - relates to generalizability of findings, mentioned but could be elaborated on; (b) same participants could have identified different statements and rated them differently for different EBP interventions (e.g. a specific intervention versus any/all EBP interventions).

Response: We appreciate the reviewers suggestions regarding specific limitations of the sample and have incorporated this information into the “Limitations” section on pages 23 and 24.