Author's response to reviews

Title: Practice Capacity to Change and Preventive Service Delivery: Subgroup Analysis from a Group Randomized Trial

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Version: 3 Date: 1 February 2008

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February 1, 2008

Brian Mittman, PhD
Editor, Implementation Science

RE: MS ID: 1123563761379400

Association of Intervention Outcomes with Practices’ Capacity to Change: Subgroup Analysis from a Group Randomized Trial

Dear Dr. Mittman,

Thank you for the second set of very thoughtful comments from the external reviewer on the manuscript previously titled “Practice Capacity to Change and Preventive Service Delivery: Subgroup Analysis from a Group Randomized Trial.” As before, we have made concerted efforts to address each concern or suggestion raised. In the letter below, we respond point by point; in the attached file we have highlighted all changes to the text using bold typeface to facilitate your review. A second file using normal font is also provided.

External Reviewer:

1. I’m not convinced that these are valid and replicable measures of the concepts they intend to measure. The authors need to provide more details on how they used the fieldnotes and practice environment checklists to generate the ratings. My concern is based primarily on the example (of “high effort”, “high ability” practices) they provide. It was very challenging to provide sufficiently detailed examples in this brief report, we conclude from the reviewer’s comments that the examples generated greater confusion rather than clarity. To permit replication by others, we have revised the text to focus more on the meaning of the ratings for “effort to motivate” and “ability to change” rather than specific applications. Our justification is that each practice is unique: even an exhaustive listing of possible examples would be uninformative (as were the
two provided). Specifically, we emphasize that these ratings represented summary judgments that synthesized the content of a large amount of rich, qualitative data. We agree with the reviewer’s concern about the reliability and validity of measures used in our study. Additional text now describes the approaches recommended by Crabtree and Miller to establish these features of our measures. (Doing Qualitative Research, 2nd edition; Sage Publications, Thousand Oaks, CA. 1999).

We also carefully reviewed the original text with the investigators of the STEP-UP trial who actually participated in the process. Through this, we have learned that the practice environment checklist was not used. We regret this inaccuracy (this text has been removed).

2. More details are needed about the combined change capacity score. This is particularly important because the combined score may be equivalent to an interaction. Text describing the calculation of the combined score (the sum of the two ratings) has been revised; additional description of the interaction (a product of the two ratings) has been included.

3. The outcome, preventive services delivery, also needs more description. It is a rate, but how was it constructed? What preventive services were included? If it was a rate, what was the numerator and denominator? Was it an average across clinicians? More detailed descriptions of the components and calculation of the outcome have been provided. As before, we include reference to its original description for interested readers.

4. Finally, more details are needed on the random effects modeling, and here a table of results might be helpful. In particular, it’s difficult to interpret the interaction effect. Are the authors saying that a 1-point increase in the interaction itself translated into a 1.1% or 1.3% increase in PSD rates? How is the interaction model conceptually different from the model testing the combined capacity score? We have revised the description of the calculation of the combined score and the interaction term (see response to item 2). The interpretation of the post-hoc model testing the interaction term has also been revised for clarity. We are hopeful that these changes add clarity without the need to circumvent the journal’s limit of one figure or table in a brief report.

5. The manuscript needs to be organized to have sections (with headings) for background, methods, results, and conclusions. Section headings have been added to conform to Implementation Science format.

Thank you for the opportunity to revise and resubmit the manuscript for further consideration. With attention to the comments and suggestions of the reviewers, we feel the clarity and contribution of the manuscript has been greatly enhanced.

Sincerely,

David Litaker, MD, PhD