

Reviewer's report

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

Version: 2 Date: 12 December 2007

Reviewer: Susan Stockdale

Reviewer's report:

I still find this article interesting and useful, but unfortunately for the authors, the revision providing more details on the measures raised additional issues. I have new questions regarding the validity of the constructs, as detailed below. It would also be helpful for the authors to present the results of the random effects models in a table.

1. Major Compulsory Revisions

The authors have done an excellent job of responding to the internal reviewer's recommendation to expand the background and conceptual framing and have provided more details on the operationalization of "motivation to change" and "ability to change". However, based on the more detailed operationalization, 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. For example, what were the themes pulled out of the fieldnotes and how did these correspond with the ratings? How did items on the practice environment checklist correspond with the ratings? Similarly, more details are needed about the combined change capacity score. Is this an average of the two individual capacity ratings? This is particularly important to know for interpreting the random effects model with the interaction, because the combined score (depending on how it was constructed) may be equivalent to an interaction.

My concern is based primarily on the example they provide. A site with brief visits and high volume was rated as having low motivation. I can understand why the clinicians would have low motivation at such a site, but if the rating of motivation was based on brief visits and high volume, I question whether this is really a measure of motivation. It sounds more like a resource issue (not enough clinicians to handle the volume). The second example is less problematic, but I still would like to know what counted as "highly adept at implementing rapid cycle QI".

The outcome, preventive services delivery, also needs more description. It is described as 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? Etc.

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 change capacity score (see comment above about defining the combined capacity score)?

2. Minor Essential Revisions

The manuscript needs to be organized to have sections (with headings) for background, methods, results, and conclusions. This is largely a matter of inserting section headings in the appropriate places.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.