Reviewer's report

Title: Observational Measure of Implementation Progress: The Stages of Implementation Completion (SIC)

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Reviewer: Anne-Marie BERGH

Reviewer's report:

GENERAL

The Multiple Treatment Foster Care (MTFC) is a recognized treatment program for youth with problem behavior. The potential of replicating or adapting strategies used for the implementation of this program could make a valuable contribution to the science of implementation. The submitted manuscript attempts to describe the development of a Stages of Implementation (SIC) measure developed to track chronological implementation progress.

The current version of the paper leaves the reader in the end with a bit of a ‘So what?’ feeling. Checklists are commonly used in the implementation of interventions, also with regard to the chronology of events. What makes this 'checklist' different from others? It was also not clear what type of manuscript had been submitted. In my view, it does not fulfill all the requirements of a research paper, although it has the potential to be developed into one (see Major Compulsory Revisions below). The manuscript is more like a report on how the activities in the trial of two implementation strategies are being tracked, without sufficient evidence of its use as “an early diagnostic tool” (Conclusions, par 2). The submission of the manuscript might have been premature, without the trial being completed yet (“the study is ongoing” – Results, par 1). Some of the limitations noted in the Conclusions could have been better addressed if the reader had more knowledge of the trial itself or the results of the trial.

MAJOR COMPULSORY REVISIONS

1. Comparing and positioning the SIC measure of implementation progress in relation to other theoretical models of stages of implementation or behavior change could provide the scientific backdrop for interpreting the merits of the SIC. Systems approaches (e.g. social-ecological) and transtheoretical and stages of change models (e.g. the work of Proschaska and colleagues) come to mind. (One could argue that implementation is a form of change and that the introduction of MTFC is a form of change [an intervention] that takes place in a system.) Insights from this literature may also be able to assist in the explanation of some of the limitations of the SIC measure.

2. Consulting more general literature on the implementation of new or evidence-based health care practices other than those in the mental health field may help to frame the proposed SIC within the more general field of the
implementation of practices leading to quality improvement in health care. Reviews that come to mind include the following:


3. Currently two foci are intertwined in the manuscript and this makes it difficult for the reader to follow the main arguments. The two foci are (1) the trial examining the effectiveness of two strategies and (2) the SIC measure (which one would like to see transferable to other similar implementation situations for other programs). The following is a suggestion for a structure for the report to distinguish more clearly between the two aspects and to do more justice to the current title:

Background:
- Reworking of par 1 in the light of other comments (e.g. additional literature to consider)
- Introduction of MTFC (Brief description of what it entails, similar to the piece in the paper by Wang et al)
- Introduction of the randomized trial of the two strategies (= how MTFC is being implemented) (Methods, par 1)
- Aim of the paper (par 2)

Methods:
- Description of the development of the SIC measure. This could take on the form of a narrative based on the authors' experience, combined with some references to relevant literature
- References to the trial itself to be limited to the SIC measure

Results:
- Description of the tool itself (The tool is the outcome of this part of the research endeavor) } Link with Table 2
- Description of how it has been used in the trial }
- Detailed discussion of the scoring system (much more detail is needed than is currently given in the last paragraph of the Methods section). In the light of the complexity of the scoring, illustrations of specific cases may be illuminating to the reader:
  * How calculations had been done in specific cases (e.g. where activities had been skipped or done at a different stage); and
  * In-depth contextual information on the reasons why activities had been skipped or performed in a different order.

Such a description could be linked to Figure 1. A graphic diagram to complement
Figure 1 (which is essentially an uninterpreted table of ticks) may also help the reader.

Discussion:
- Discussion of the complexity of interventions like MTFC (link up with other literature) and the implications for measuring progress
- Linking the SIC with other measures reported in the literature, with a discussion of similarities and differences and an indication of the usefulness of the SIC measure
- Building of the argument on the minimization of time and resource demands for community implementation partners (Background, last par and Conclusions, par 2)
- Limitations

The approach described above was used in the following paper, which was published at the same time as the results of the accompanying randomized trial in which the progress measure had been used:


Results of the randomized trial can be found in:


4. A clearer distinction of the authors’ understanding of the constructs “program”, “practice” and “strategy” may be useful.

- Different meanings are assigned for the abbreviation “EBP”. In the abstract it is used for “evidence-based practices” (plural) and in the same paragraph later on for the singular form. In the first paragraph of the manuscript (Background) it is used for “evidence-based programs”. In later parts of the manuscript it is used in such a way that it sometimes appears to be referring to a practice, sometimes to a program and sometimes to either a practice or a program. One example (par 4 of Background): “... system leaders often play a key role in initial decisions to adopt an EBP, but by the time the practice is delivered to the clients ...”.
- MTFC is usually described as an intervention program consisting of various components. The “two implementation conditions” (Methods, par 1) of MTFC, Community Development Teams and the standard Individualized Implementation are also described as strategies. In order to be tested in a randomized implementation trial the two strategies are operationalized into two implementation programs, each with a core set of activities and additional activities for the experimental group.

5. In my view, a combination of Tables 1 and 2 would give the reader an easier overview of the implementation program. Expanding Table 2 to include a further column that shows at which points additional activities (in-person meetings and group telephone calls) are performed for the CDT condition only and where
additional technical assistance by local consultants is given could also assist readers not working in the mental health field to get a bird’s eye view of the differences between the two strategies in relation to the standard implementation activities for both trial groups.

MINOR ESSENTIAL REVISIONS

6. References:
Ref 1, 3 & 10 The name of the journal changed a number of years ago. The journal as referenced on the PDF versions of the papers is only “Adm Policy Ment Health”
Ref 3 Initial of Landverk omitted (J)
Ref 5 Correct abbreviation for the journal is Jt Comm J Qual Patient Saf
Ref 6 Milbank has one “l”
Ref 8 Sacramento, CA: (colon and not comma)
Ref 9 Spelling errors: “effective” and “Practices”
Ref 10 Delete “(2008)” after the authors’ names
Ref 12 Sonsa … Sacramento, CA: California Institute for Mental Health; 2006: 2-39. (To be consistent with other similar references)

7. Table 2:
- If the activities are numbered 1.1, 1.2, 2.1, 2.2 etc it will help the reader to understand Figure 1.
- Some spelling inconsistencies:
  * Stage 5: - Capital letters for all the important words in left column
  - Activity 3 – “Call” should start with a lower case
  * Stage 6: - Activities 1 and 2 are on the same line

DISCRETIONARY REVISIONS

8. Linking the notions of “system leaders” and “decision makers” (Background, par 4 and Results, par 1) with “opinion leaders” that has been described in the literature.

9. Linking the SIC measure with the notion of “checklists” that are often used in the management of implementation. I am more familiar with its use in clinical audit, changes in clinical practice and measuring clinical competence, but found that the following article has more general application:

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.

Declaration of competing interests:
I declare that I have no competing interests