Reviewer’s report

Title: Leading for the long haul: a mixed-method evaluation of the sustainment leadership scale (SLS)

Version: 0 Date: 21 Mar 2017

Reviewer: Cara Lewis

Reviewer’s report:

Re: IMPS-D-17-00091

I had the opportunity to review the manuscript entitled, "Leading for the long haul: a mixed method evaluation of the sustainment leadership scale." This study adapted the Implementation Leadership Scale (ILS) to evaluate its ability to characterize key leadership domains of relevance in the sustainment period. The a priori hypothesized four factor structure was supported, indicating structural validity was established, and subscale (as well as total scale) internal consistencies were very strong, indicating reliability of responses was achieved in this sample. The expansion component of their mixed methods study revealed a possible fifth factor reflecting leadership availability that may be particularly important for sustaining the use of evidence based interventions. This study has numerous strengths including the sample size, setting (diversity of contexts, providers, teams), the mixed method analytic approach, and the focus on measure development in the understudied phase of sustainment. The manuscript also has several weaknesses that undermine its contribution to the literature. Weaknesses include the lack of theoretical justification for the measure in its current form (i.e. identical to ILS, but for changes to referent and phase), the lack of a criterion confirming the relevance of these subscales for sustainment, and the approach to qualitative coding. These issues and minor additional weaknesses are elaborated on below.

Major Revisions

1. Most importantly, there is insufficient theoretical justification for the dimensions of leadership and regarding why a unique sustainment phase leadership measure is needed. Without this rationale, it is hard to appreciate the need for this measure, especially because it is identical to the ILS (save for replacement of the referent and phase). Here are some questions and issues that feed into this comment:

   o Why are the EPIS and CFIR the only frameworks referenced? Consider highlighting the role of leadership across the 60+ D&I frameworks or provide a rationale for why these two are the only two presented in the introduction. Moreover, it does not appear that either of these frameworks informs the development of the leadership domains, antecedents, or related criterion.
Related to this first point, no nomological network is constructed, nor is domain
delineation provided to ensure that the constructs or components of the SLS are
sufficiently different from one another and from similar constructs. This is
especially relevant as the authors grapple with potential overlap between the
"available" construct that emerged from the qualitative analysis and the
perseverant and supportive components. Moreover, this process would help the
reader appreciate the difference between sustainment leadership and general
leadership.

The author's conceptualization of "leader" is not well specified. When
summarizing the literature in the second paragraph, it is unclear if the data reflects
leadership behaviors that could be espoused by anyone on a provider team or if
there is a status, role, or hierarchical position that makes these behaviors
especially impactful/important? This information (even if conceptual or
theoretical would inform with whom one should use the measure in the future).

Sustainment is not carefully defined. The second paragraph on page 5 attempts to
justify the need for this measure beyond the ILS by discussing both phases
(implementation and sustainment), but the authors make a more compelling case
for the idea that sustainment is very much contingent on implementation (e.g.,
"sustainment is, by definition, dependent on implementation").

Although the authors end the second paragraph on page 5 by stating, "the two
processes [implementation and sustainment] have unique aspects that may require
distinct leadership skills" there is no mention of what these might be. Moreover,
their study is not designed to reveal these unique aspects, expect in the qualitative
method, which arguably is not set up to yield sustainment specific leadership
skills (see point #3 below).

Do the instructions for the measure make clear who participants should consider
in their responses? Some staff consider "leaders" to be middle or upper managers,
or some settings actually have positions called "team leaders" and because the
authors had a specific role in mind, it is important to ensure that participants
shared their view. Moreover, the authors note in the discussion that leaders at
different levels within an organization may espouse different leadership
characteristics and engage in different activities to support sustainment. This
might be best considered in the background when building rationale for the
measure as opposed to included in the discussion. And, although the authors
suggest that perhaps the SLS would demonstrate a different factor structure across
different leader levels, it may also be the case that different characteristics (and
therefore different items) are needed to reflect optimal sustainment leadership,
which should be included in their discussion.

Although this would be a significant revision, this reviewer wonders if the ILS
and SLS were administered in this same study and, if so, could the authors
explore the predictive validity of the ILS. Demonstrating the predictive validity
and providing evidence of the unique variance accounted for by the SLS would provide important support for this new measure. Making the case for the need for a separate measure is critical given the challenges faced in science and practice with respect to limited opportunity to collect measures from providers.

2. The authors don't consider alternative factor solutions, likely because their a priori hypothesized model fit the data well, but it seems prudent to consider a single leadership factor.

3. The qualitative questions do not clearly address sustainment. Perhaps this is not an issue because all agencies would be considered in a sustainment phase, but it is concerning that the word "sustainment" does not show up in the focus group questions that were analyzed. The manuscript indicates that these "semi-structured questions addressed positive and negative influences on SafeCare implementation and sustainment." How did the coders distinguish between responses regarding the impact of leadership on implementation versus sustainment? Because of this, it is suggested that the "available" leadership component be referred to as preliminary, especially in light of the fact that no criterion is provided.

4. There is no discussion of inter-rater reliability for the qualitative coding, or how the transcripts were distributed across coders, or what sharing "their work with one another for review" means.

5. There seem to be additional conceptual differences between the quantitative measure of leadership and the results from the qualitative focus groups. For instance, it seems like the survey subscale of "knowledge" could be enhanced by incorporating knowledge of fit of the EBI with one's workflow or caseload as this came up in the qualitative data, but was not acknowledged as being distinct from the quantitative items. Similarly, it seems that some unique elements emerged in the qualitative data that are subsumed within "supportive" leadership but are quite distinct from the items that comprise that subscale. Specifically, at least one finding in this section seems to suggest that supporting adjustments to workflow/tasks is important for leaders (line 13-15 on page 15). Finally, it seems like there is a unique element emerging in the perseverant leadership section of the qualitative data wherein adapting SafeCare to fit complex patients is useful, but this is not captured in the quantitative measure. It would be helpful to hear how the authors made decisions about how these potentially unique dimensions of each leadership domain were best conceptualized as fitting within the existing domain.

Minor Revisions

6. The authors are encouraged to discuss their intended use of the SLS. Given how the items are worded, it seems like it is primarily an evaluation tool to assess the degree to which leaders espouse leadership characteristics or engage in activities during the sustainment phase to support EBI use. There is much to be said about planning for sustainment and it could be useful for the authors to discuss how their measure might inform sustainment in
earlier phases. For instance, given that the ILS is essentially identical to the SLS, the authors might be able to use (either of) the tool(s) to predict sustainment. Or, perhaps building capacity could focus on growing these characteristics and activities in leadership during the implementation phase. Helping readers to think through when, where, and with whom the tool is useful would be welcomed.

7. On page 7, line 8-12, is the bulk of the sentence referring to coaches or supervisors?

8. The two sentences beginning on line 12 and going through line 24 are very confusing. Please revise as it seems like both are missing words.

9. It would be helpful to report the distribution of years implementing SafeCare across the participating agencies and not just providing the range of 1.5 to 10.

10. Please provide the correlation among the factors.

Discretionary Revisions

* On page 6, line 29, consider replacing "address" with "contribute to."

* Consider replacing "analyses" with "setting" on page 7, line 34.

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