Author’s response to reviews

Title: Assessing Organizational Implementation Context in the Education Sector: Confirmatory Factor Analysis of Measures of Implementation Leadership, Climate, and Citizenship

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Dear Editors:

We appreciate the time and energy you and your reviewers have dedicated to providing us with feedback on our manuscript, Assessing Organizational Implementation Context in the Education Sector: Confirmatory Factor Analysis of Measures of Implementation Leadership, Climate, and Citizenship. Below, we have responded to each point of feedback for the review provided to us. As indicated in the instructions for authors, we have also indicated in the manuscript where we have made corresponding changes using YELLOW HIGHLIGHTS.

Reviewer #1:

(1) This is an interesting paper in a rapidly expanding field of study. One important aim of the paper is to validate an existing instrument in an education context. This is timely, as there is a growing need to extend implementation science into the area of education.

However, I am not convinced that that authors have gone far enough to be able to transfer the concepts directly into school situations and this is acknowledged in the limitations section, when the authors suggest that 'Data were only gathered from embedded behavioural health consultants' and that 'Data gathered from multiple providers within each of the schools and aggregated to reflect the OIC factors at the school level might have produced somewhat different results'. I
agree with this. The second aim of the paper, to validate the instrument, has been carried out very carefully and with technical accuracy. The model is really useful and with more extended preparation for use in schools the scales could be used as tools for surveying the conditions of the school before, or after implementation of EBP programmes.

We appreciate the reviewer’s assessment of our work as timely and filling a need in the field of implementation science. We acknowledge and agree with the reviewer that the primary respondents to our revised measures may not be fully representative of the types of personnel and service providers who work in the education sector. We have expanded our discussion of this point in the Limitations (p.26), and are currently engaged in a new effort to expand the sample of respondents to include a wider variety of educators/school personnel. We also appreciate the reviewer’s positive review of our methodological approach – as well as its generalizability – and agree about the potential practical implications of the measurement instruments we are developing.

(2) The paper would benefit from a much more extensive education focussed literature section. Deeper reading and more extended definitions would enhance the work and prevent the duplication which takes place in the introduction. For example, there are lots of examples of EBP interventions taking place in schools and although school improvement may not be conceptualised in the EPIS terms the authors use in the paper, there are many published examples of school development but where different terms are used for the same concepts. This is an inherent difficulty when moving across disciplines.

Thank you for this recommendation. In the original submission, we attempted to present the literature on the school context in a way that was both parsimonious and accessible to the healthcare audience that makes up the majority of the Implementation Science readership. Nevertheless, we agree with the reviewer and are aware of the additional, important implementation work that has been completed in schools. We have therefore made significant revisions to the “OIC Assessment in the Education Sector” section of the Introduction to present a more comprehensive review of education sector research focused on factors such as leadership and climate – including reference to some general measurement instruments – while simultaneously attending closely to manuscript length (see p.10-11). We welcome any additional, specific literature that the reviewer would like to suggest as relevant to include.

(3) I have a problem with the 'behaviourist' views of teaching that the authors use and would challenge the assertions made in this paragraph in p10, that 'In the education sector, existing measures of organizational processes have several limitations: (1) they are most often either global/molar in nature (rather than specific to implementation) or intended for use with specific EBPs and not generalizable; (2) they lack an underlying theoretical framework'. I think the authors could look more closely at the Education literature and perhaps adopt a more critical approach to some of the assertions they make in the paper.

We appreciate this comment. We conducted a more thorough literature search and were unable to locate additional school-focused measures of types of organizational implementation constructs that are the focus of the current work. Educational leadership, for instance, has been a
focus of research on school improvement, but most studies examine general leadership qualities (e.g., transformational or transactional leadership) without explicit attention to the more specific qualities most directly tied to adoption, delivery, and sustainment of new practices. Instead, we have provided a more detailed review of existing measures of more general organizational processes in schools (e.g., educational leadership; see response to Reviewer Comment #2, above). We have retained our statements about the current state of the implementation-focused organizational literature in schools, but have clarified that although measures may exist that meet one or two of these criteria, no measures we have been able to locate meet *all* of the criteria listed. If the reviewer is aware of specific, theory-driven measures that transcend any given program or practice and are intended to yield practical solutions to improve the implementation of new practices, we would very much appreciate knowing about them.

(4) In the next draft, the authors ought to address the inconsistencies in referencing, for example there is a citation on p7 which uses APA guidelines and reference 18 is incomplete in the reference list.

Thank you for catching our referencing errors. These have been corrected in the revised manuscript.

(5) It would be helpful too if some of the jargon used could be explained more fully for readers not familiar with term such as 'micro', 'molar', 'global' and 'embedded mechanisms.' The extended inclusion of examples in brackets in the text is also quite clunky and makes the text more awkward to read.

We have revised the manuscript to reduce the use of some of the terms (e.g., micro) and include additional explanation of others that might be unfamiliar (e.g., molar – see p.6). In situations where different terms are largely synonymous (e.g., molar and global), we have selected a single term. We have also attempted to reduce bracketed/parenthetical examples when possible, sometimes converting them into stand-alone sentences.