Reviewer’s report

Title: Identifying priorities in knowledge translation from the perspective of trainees: Results from an online survey

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Reviewer: Brian Mittman

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This manuscript pursues an important goal: the development of a list of research priorities for the still-evolving field of implementation science. In its current version the contribution of the manuscript to this goal is limited, however, and the manuscript does not add appreciable insight or value to currently-available information and guidance.

The most significant shortcoming of the manuscript is implicitly stated but probably unrecognized in the Conclusion. The authors explain that the priorities presented in the manuscript were derived from a sample of trainee respondents (N=44) who completed a brief point-in-time survey, and they (the authors) present this as a superior basis for identifying priorities than editorials, commentaries and other publications. If one considers the mechanisms and processes generating the two sets of information on priorities (the trainee survey and the published documents), however, their comparative strengths and weaknesses becomes less certain than the authors assert.

Given their status as trainees, the 44 survey respondents possess a depth and breadth of exposure and experience in the implementation science literature that are more limited than those of expert researchers (e.g., who have worked in the field for 10-20 years). The trainees’ views on priorities were likely heavily influenced by (if not formed on the basis of) the views of their mentors and teachers and the views and priorities presented in the editorials, commentaries and other published documents that the trainees read during their early training. (The heavy influence of mentors and teachers and written documents is inevitable for researchers whose own hands-on experience in implementation studies is limited.) For this reason the survey results presented in the submitted manuscript are not likely to represent a new, independent source of information. A separate argument in favor of the value of the published sources of priorities (relative to the trainee survey) is that the fact that the published sources, in contrast to the brief survey responses of trainees, typically represent the combined, carefully considered conclusions and insights of author teams comprised of several expert, long-tenured implementation scientists who have formed their opinions through first-hand experience in designing, conducting, reporting and using a rich series of implementation studies, as well as extensive experience in peer reviews of grants, conference and journal submissions, informal peer reviews of colleagues’ and trainees’ work, and involvement in multiple systematic reviews of implementation science literature. The greater
depth and breadth (and “sample size”) of first-hand experience and exposure to colleagues’ work captured by (and thus supporting) the list of priorities and views expressed in the published articles are significantly richer than the more limited basis for the survey results: the published articles typically represent collaborative work conducted over a weeks-long period of careful debate and consideration among experienced co-authors, augmented by careful peer review by expert colleagues and journal editors.

The authors have also failed to reference prior published statements of implementation science priorities: the cited editorials and commentaries (other than the Straus 2011 article) provide information on priorities, but do not report the result of formal, focused efforts to identify priorities and develop research agendas (such as the Eccles et al research agenda published in Implementation Science in 2009). Any new information on priorities should be presented in the context of (and explicitly compared with) previous publications pursuing the same aim, with discussion of the differences and their explanation and implications.

Although this review has argued that the trainees’ views represent an inferior rather than superior source of guidance on key priorities than published documents, the survey data might represent an interesting source of insights into the effectiveness of training programs and published documents in conveying priorities, or insights into differences in expert vs. trainee views and their implications for operationalization and realization of the agendas proposed by expert researchers. These alternative uses for the survey data should be explored by the authors.

**Level of interest:** An article of limited interest

**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.