Reviewer’s report

Title: Using the theory of planned behaviour as a process evaluation tool in randomised trials of knowledge translation strategies: a case study from UK general practice

Version: 2 Date: 31 July 2009

Reviewer: Alison Brown

Reviewer’s report:

Strengths of this paper include its innovative approach to process evaluation, its use of theory, and its complex statistical analysis. I commend the authors for tackling the challenge of applying a theoretical construct to the design and interpretation of their evaluation and I believe there is much to be gained scientifically from the continued pursuit of this application in implementation science as a field. However, the paper has some components that I feel could be confusing to readers, and some components that overstate the implications of their design and findings. Overall the authors need to take a more cautious and critical approach to the presentation of the results and their interpretation.

1. The concept that process evaluation data (especially post-intervention data only) could be utilized to identify “causal mechanisms” needs to be more fully explicated in order to be convincing. In this study, as the authors note, behavioral data was not available for the individuals who completed the questionnaire, but rather, was analyzed at the level of each general practice. A design that includes pre- AND post-intervention questionnaires AND individual-level behavioral data would be able to better address the issue of causal mechanisms, but such a design would have to be triangulated with a number of other data sources and would still be limited from an empirical point of view. The authors do note that it is difficult to analyze “individual psychological theories when the behavioural outcome is collected at the practice level,” but further critical analysis of this design issue needs to be provided.

2. The second major concern is the use of one post-intervention measure, highly obvious in its use of TBP constructs (at least as presented in Box 1), as constitutive of a process evaluation. I am concerned that this paper may mislead readers who are not familiar with process evaluations in the sense that very little is said about what would or could have made this a more thorough, comprehensive process evaluation. As currently written, a reader naïve to process evaluation might conclude that utilizing one post-intervention measure makes a process evaluation. A discussion of how a theoretically-driven questionnaire could be PART of a thorough process evaluation would likely necessitate references to the ever-growing literature on process evaluations in implementation science.

3. Related to the second concern, the lack of any literature cited in the discussion makes it difficult for the reader to consider the authors’ findings in relation to
other studies of a similar nature. A discussion of where this study departs from and/or augments the work done by other scientists is particularly necessary in light of the complex findings that the authors present.

4. The authors should provide an explanation of how they randomly selected the 50% of the sample of the “randomized groups of general practitioners,” and they should provide some speculation as to why their response rate of 57% was rather low, and what efforts (if any) were undertaken to increase the response rate. Such information about who was selected would allow for interpretation as to how representative the data are in terms of the enrolled general practitioners and of general practitioners outside this study. Information about the response rate would also be valuable from an implementation science perspective in that participation in process evaluation endeavors is often difficult to achieve to the extent that we seek in such studies

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.