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: 4 Date: 13 July 2010

Reviewer: Jeffrey Smith

Reviewer's report:

General Comments:
The authors have addressed some reviewer concerns expressed in the initial review, and the revised manuscript is improved. However, some primary concerns with the manuscript have not been adequately addressed.

Major Compulsory Revisions:
1. The revised manuscript still includes language indicating that there were “changes” or “improvements” in TPB constructs (when only one survey assessing those constructs was administered), or that ‘change’ in TPB constructs was “causal” in observed changes in test-ordering behavior (when the survey was ONLY administered contemporaneous with the intervention (ie, at 12 months)... and there was no pre-intervention assessment). Thus, the relationships between TPB constructs and test-ordering behavior observed during the 12-month intervention period would more appropriately be described as ‘correlates’ or ‘associations’, not predictors. Accordingly, it is an analytic and interpretive stretch to state that...
   a. … “there were improvements in intention, attitude and subjective norm to FSH and ferritin test requesting...” (page 14, Discussion section). It would be more appropriate to state that there ‘may have been’ such improvements.
   b. … “there were high baseline intentions, subjective norms and attitudes for HPS requesting...” (page 14, Discussion section). My understanding is that there was no baseline survey that assessed the TPB constructs.
   c. … “the observed trial reduction in test requesting was partially mediated by a change in intentions.” (page 14, Discussion section). Again, it would be more appropriate to state that the reduction in test requesting ‘may have been’ partially mediated by a change in intentions.
   d. … “the difference in constructs scores between intervention and control practices were large and provided compelling evidence of changes in construct.” (page 17, Discussion section). Although there was compelling evidence of differences in construct at the 12-month assessment, there was very limited to no evidence of change in construct.

2. For the sentence beginning “The results of this process evaluation utilizing
theory…” at the bottom of page 17 in the discussion section, I would suggest the following revision...

“The results of this process evaluation utilising theory, re enforces that TPB may be an appropriate theory to predict health professional behaviour change [9], and that it may offer useful insight into the processes underlying change (trial effects) in KT trials [17].”

3. Some comments regarding the following sentence in the Authors’ Response letter… “Whilst it may seem theoretically possible that the intentions to request a test were imbalanced at baseline and continued to have the same level of imbalance post intervention, we cannot determine any obvious mechanism for such an effect to have occurred given the balance at baseline in requesting behavior.”

a. I agree, but this actually reinforces some of my points concerning the limitations of the study. We do not know whether there was balance or imbalance in intentions to request a test at baseline because intentions were not assessed at baseline. If there was balance in intentions at baseline which corresponded to the balance observed in test requesting behavior at baseline, that would lend support to the authors’ premise in the manuscript that intentions ‘changed’ during the intervention and ‘mediated’ the intervention effects that were observed. If, however, there had been imbalance in intentions at baseline that did not correspond with the balance in test requesting behavior (which the authors acknowledge as possible), I agree that it would be difficult to determine any obvious mechanism for such an effect. However, if such discordance between intentions and test-requesting had been observed, a more comprehensive process evaluation could have included interviews with clinicians to try to explore potential reasons or explanations for such discordance.

b. Further, a more comprehensive process evaluation may have included interviews with clinicians to (a) obtain their perspectives on the components of the intervention that were more or less successful in influencing test requesting behavior, (b) explore whether practices or practice leadership introduced any additional resources, mechanisms or policy changes (on top of the intervention) to modify behavioural intentions or otherwise facilitate improvement in test requesting. It certainly would not be unprecedented for individual practices and/or clinicians to introduce such changes while participating in an implementation trial, and comprehensive process evaluations help us identify such variants that may influence study results. All that being said, the manuscript could contribute to the literature if presentation of some of the results could be moderated as noted above.

Minor Essential Revisions:
None.

Discretionary Revisions:
None.
Level of interest: An article of limited interest

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.