Author's response to reviews

Title: The Role of organizational context and individual nurse characteristics in explaining variation in use of information technologies in evidence based practice

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Author's response to reviews: see over
October 13, 2012
Professor Bridie Kent
The Implementation Science Editorial Team

Dear Professor Kent

Re: Comments from Dr. Martin Lee:

Thank once again for the time and effort that has been committed to reviewing our manuscript. We have carefully reviewed Dr. Martin’s very helpful comments and our revisions are highlighted in the manuscript and summarized below.

“The dependent variables appear to be introduced on a piecemeal basis in the Tables but not in the text. The frequency of use variable appears to be defined as a dichotomy (use every few days or more: Table 3) and as a frequency variable (how often used: Table 4). Obviously the regression models are different in each case. I think they need to explicitly state in the Methods section each of the outcome variables (and define them) along with the regression model used. This could be a table.”

To clarify this issue, we revised Table 3 (please see Table 3 in the manuscript) and also added a statement “The dependent variables used in the regression analysis were defined in Table 1” in page 34 since outcome variables had been already defined in Table 1.

“In the Results, the findings are very difficult to follow. Again, a table of each outcome with the significant predictors could be given instead of so much text that is hard to read (I think Tables 5-8 try to get at this, but it is not explicit enough).”

We summarized all estimates and 95% CI into a single table named Table 5. Please see page 44 in the manuscript.

“One thing that does not make sense is Table 4. Calculating ICCs at each level is totally irrelevant since that is not how the data are going to be analyzed in the hierarchical model. I'm sure they are aware that the size and significance (or lack thereof) of the ICCs would not change the use of the three-level model, e.g. the ICC is zero at the sector level for two of their outcomes, but I seriously doubt that they collapsed the hierarchy for those analyses as a result.”

That is a good point. We applied a three-level modeling approach due to the nature of data structure where individual nurses were nested within organizations which were in turn nested within healthcare sectors. We computed ICCs to see if substantial variation exists between groups compared to variation within groups. We put a note following Table 4, pg. 43.
“One other thing: there does not appear to be any effort to deal with the dropout issue as they moved from T1 to T2. Has this biased any conclusions? I think this should be addressed somewhere.”

We have added a brief discussion about the response bias in the study limitation section by comparing the demographic characteristics of Time 1 and Time 2 respondents to the target population (College of Nurses of Ontario registration database) (page 20).

“Once they explicitly specify what was done statistically, I would be in a better position to conclude that everything was done properly. However, I am fairly confident that there is not a problem.”

Thank you again for your review of our manuscript. We have attempted to address all of the issues raised in the review.

Sincerely

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