Reviewer's report

Title: Uncovering middle managers' role in healthcare innovation implementation

Version: 1 Date: 19 September 2011

Reviewer: Daniel Holt

Reviewer's report:

The author(s) should be commended for their efforts to develop, what I believe, is an important model to understand implementation of all innovations, in particular those related to the health care field.

Substantive Issues

1. I would recommend Birken et al. better clarify middle manager role as a crucial linchpin in the implementation process. Not necessarily familiar with the implementation science literature (as my field is in more general managerial issues without specializing in the health care context, the ideas that are presented suggest that the emphasis on physicians and top managers is completely appropriate as Birken et al. convey their examples. For instance (and this holds for many of the examples I read), the research suggests that there are differences between the cardiovascular care that men and women receive. You go on to point out that these differences are due to physicians not using evidence-based practices. In essence, I view this as a physician issue which, you acknowledge, is being tackled in the literature.

I see that you are suggesting, and I agree by the way, that middle managers’ may play a role in this as well. There is considerable research from the management literature that has suggested that middle managers play a particularly salient role as changes are implemented because they appear to be at the heart of the cognitive shifts that occur during change. Essentially, those applying interpretive approaches argue that managers interpret events and use those interpretations to frame the meaning that others’ ascribe to those events (e.g., Daft & Weick, 1984, Academy of Management Review, 9, 284-295). Still, the examples aren’t conveyed in a way such that I completely understand what their role is in this particular context. The HDC initiative is cited but not described in a way that completely

Bottom line, I think the arguments would be bolstered if the particular role that middle managers play is more clearly articulated, especially in the context that is being studied.

2. It seems that there is an equally important issue as this is discussed. What can be done to stimulate middle managers such that they sustain the climate and behaviors that are necessary for the development of an implementation climate? Many of these are suggested but are not incorporated into the model. Network centrality is suggested, for instance, as diffusion practices are discussed (p. 9).
Another network issue might be structural holes (suggested as you discussed the unique position of middle managers, p. 11-12).

Other relevant issues such things as resource availability which might be a moderator between the implementation climate and implementation effectiveness relationship as well as the implementation effectiveness (which I discuss in the subsequent comment) and outcomes (or innovation effectiveness) relationships.

3. The model seems to be abbreviated and warrants some refinement. While the definition of implementation effectiveness is consistent with Klein and Sorra (1996, cited in the manuscript), I’m not sure this is the appropriate construct of interest. It seems that effectiveness should be the benefits that are a result of implementation (i.e., innovation effectiveness as defined by Klein and Sorra, 1996). Thus, I would recommend you refine your definition of implementation effectiveness or include an additional variable.

4. Implementation climate is not clearly defined. You suggest that it has certain elements (i.e., reward climate, support climate, and role clarity). Recommend these be more clearly articulated as this appears to be the mechanism that you are suggesting. You currently align this with the thoughts presented by Klein and Sorra (1996) but you might consider some of the literature on corporate entrepreneurship where scholars have presented specific factors that influence middle manager’s perceptions regarding innovation (Hornsby et al., 2002, Journal of Business Venturing, 17, 253-273).

5. The multi-level nature of this issue isn’t articulated in the manuscript. Essentially, you are arguing that the implementation climate (or shared perception) would materialize based on the individual acts of the middle managers. What isn’t clear is whether the outcomes that come from the shared perceptions that emerge are individual level variables or collective behaviors?

Other times you suggest that the actions of the individual level manager would influence other individuals—in my mind, “selling” might be such a behavior.

Overall, I would recommend you very clearly differentiate between individual and group level variables, revising the model to reflect a multi-level issue. This is critical as the theory is tested empirically.

6. Along the same lines, I would recommend you take into account the reciprocal nature of the relationships. For instance, what theory suggests that the climate arises out of the individual acts of middle managers? Would it be equally reasonable to think that the middle manager would not engage in the specific activities that are within your model if they don’t perceive a climate that supports this? You suggest this implicitly as you discuss the role that perceived organizational support plays as decisions are made. Moreover, others have suggested the climate shapes the mid-level managers reactions rather than vice versa (see Hornsby et al., 2002).

At the very least, you must present a sound theoretical case for the model to work in the sequence that is suggested.
7. It seems that many of the recommendations you make for future research should be addressed in this theoretical piece. First, you suggest that researchers should address the basic question as to whether middle managers influence health care innovation. It seems that the model is predicated on a positive answer to this question—that is, middle managers do play a role (although at times may be in a negative way). As noted previously, I believe you need to justify this claim more clearly as there are pieces of this discussion interspersed throughout the manuscript.

8. As with the previous comment (and others), it seems that you should incorporate antecedents to the middle managers’ behaviors rather than suggest that this should be future research. In my mind without this, the goal of a model that explains middle managers’ role isn’t fulfilled.

9. It seems that there should be an overarching theory that guides this entire discussion, giving insights into the most relevant variables. For instance, you might consider social capital which is viewed as a distinct resource embedded within relationships. Many of the ideas you have noted, like structural holes filled within networks, are included.

While this is one idea, it seems that you would be able to avoid the comment of “why not other variables?” if there were an overarching theory.

Minor issues:

10. Second to last sentence in the opening paragraph is awkward.

11. I’m not clear what was actually done with the HDC initiative. Recommend you describe this in a way that the specific objectives, outcomes, and processes are conveyed.

12. There are several redundancies that could be eliminated. It seems that the idea that middle managers have been overlooked in the literature was conveyed repeatedly.

In closing, I want to thank you for undertaking this work. With some refinements to the discussion, your work has the potential to make a contribution to our understanding of the implementation process within the health care setting.