Reviewer's report

Title: Understanding effective care management implementation in primary care: A Macro cognition perspective analysis

Version: 1 Date: 16 January 2015

Reviewer: Jamie Brehaut

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Review Holtrop et al Implementation Science

This work seeks to better understand the process of implementing practice change by studying how the Chronic Care Model (CCM) for diabetes gets implemented into five Michigan primary care practices. Interviews and observations were coded and interpreted using the macrocognition framework, and the data related to success of implementation as indicated by the Re-AIM framework.

Overall Recommendation

The idea of understanding how different individual practices implement complex interventions is worthwhile, although the introduction would be more convincing if this work were situated in the context of broader implementation frameworks such as the Graham Knowledge to action framework or the UK MRC framework. In particular, the macrocognitive approach seems particularly targeted at understanding team dynamics contributing to successful or unsuccessful implementation. The application of a team-focused framework to understanding implementation seems novel in the context of recent frameworks (e.g. theoretical domains framework) which are mostly focused on the behavior of individuals. In general, the work seems likely to have been carefully done, however the methods section doesn’t really reflect that, missing important information and generally not making it easy for the reader to understand the flow of the different sources of information. This work should be publishable after some substantial revisions.

Larger issues

The introduction could be improved by better laying out the relationship between cognitive task analysis and the macrocognition framework. Also, general reference is made to the previous successes of the framework, but understanding what evidence suggests such an approach can lead to important improvements would be useful.

Results from the main trial appear to be touched on in the design section, but only briefly, and so it is not clear whether the two outcomes showing success of the intervention are primary outcomes, or merely 2 among many showing no effects. More detail on the results of the parent trial would be helpful, as well as a reference to the paper reporting the results if one exists yet.
Data collection section
It’s unclear whether each practice member was interviewed twice at the two points, or whether some were interviewed at baseline and some later.

Table 2; It’s unclear why more detailed information on practices can’t be provided. How many interviewed per practice? What was the personnel distribution per practice?

P7. Observation template referred to in the text wasn’t evident in my manuscript. Also, “…including how the practice handled change in the past and how new changes were planned” Unclear how can you could observe things going on in the past and the future.

Semi-structured interview guide, non-CTA sections: how were these sections developed? Was there a framework informing the development of these non-CTA questions?

Providing an example of one or more task diagrams would help the reader understand what was being provided by participants.

Also, not clear what parts of the interview are specific to the chosen target patient, and which are discussed in generalities; you say participants were restricted from talking in generalities, but it seems that phase three is eliciting generalities, ie. how deviations can happen in other circumstances.

Perhaps a figure or paragraph outlining all the different stages/documents; difficult to keep straight summary forms, task diagrams, knowledge audits, transcripts, evidence tables, reconciliation tables etc; what was member-checked, what was coded, in what order etc.

P8 “including double coding situations”; unclear. Also, bottom of the page, reference is made to extraction of themes from quotations, but unclear how these themes corresponded to the macrocogniton codes.

Were only transcripts coded, or were the drawings included as well?

Unclear who coded the quality of macrocognition functions on the 4 point scale; multiple coders independently? The study team together? Who coded the RE-AIM criteria? The same coders, who have already decided how well the practices did on the Macrocognitive dimensions?

Outcomes reported in Table 4 are difficult to interpret and appear to be inadequately described in the methods. What does ‘=’ mean? How were ratings of good, fair, poor, etc arrived at? What does the ‘REach’ column describe? Some (but not all) of the relevant information appears to be in the third column of Table 3, but this requires the reader to jump back and forth between the two tables.

Discussion: “There were no doubt other factors that play a role in successful implementation.” Comment on how important the factors you have identified would be useful; are these 1% of the variance? 10%? 100%? Any evidence from other contexts that these are important predictors?
Minor Discretionary

- Table 2 could be more informative; which practice was paired with which?
- Design section “comparing care management outcomes; do you mean comparing ON care management outcomes?

Discussion header seems to be missing; P19?

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

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