Reviewer's report

Title: Realist synthesis: illustrating the method

Version: 1 Date: 30 August 2011

Reviewer: Paul Ward

Reviewer's report:

Overall, this is an excellent expose of 'doing' a realist synthesis. At first I was slightly over-whelmed by the sheer volume of additional files, but in reading the manuscript, I found them extremely useful. I can imagine that researchers wishing to engage in a Realist Review would find this paper very useful. Since the submission of this manuscript, Trisha Greenhalgh et al have published a paper in BMC Medical Research Methodology, which I would suggest the authors read and make use of - it attempts to do a similar task as this paper - to set up a 'protocol' for doing realist synthesis.

Major Compulsory Revisions.

1. Whilst Additional File 1 was useful, I felt that much of it could/should be integrated within the paper in order for the reader to get a better sense of where you are coming from

2. I had concerns over the 'Theoretical Framework' in Figure 1. I guess my main concern may be semantic, but I did not feel this was a theoretical framework, because not 'generative mechanisms' were being proposed, which is key in critical realism. I was also unclear on the 'mechanisms' and 'contexts' within the diagram - I think it would be good to use these specific terms, since that's what you refer to earlier in the text. I was also unsure the 'level' of theory you are working on - Pawson talks a lot about the use of Middle Range Theory (ala Merton 1967), but you were not clear on how you were using or developing theory. This needs to be much clearer.

3. In Figure 2, your initial screen of articles reduced it from 16,187 to 196 (from title search). Given this massive reduction in papers, I'd like more detail about the exact process used. You are asking readers to assume that the 196 represent the most appropriate 'data sources', although they are not being told about the decisions made etc.

4. on Page 13 in the final paragraph of Appraisal, you mention about dealing with discrepancies about quality and relevance of articles. I'd like much more detail about if/how you dealt with these and what the outcomes were.

5. Having done a realist synthesis, I realise how difficult it is to 'find' the underlying theories form/in published research reports - they are just often not there (due to word limits of journals and often the implicit theories worked on by researchers/evaluators). How did you interrogate the papers for 'their' theory/ies?
6. On Page 15, you list a 6 stage process of 'synthesis' - this process looks to me like a fairly traditional form of thematic analysis, which often 'describes' patterns within the data, rather than inferring outside of the data in relation to the generative mechanisms. Where was the 'synthesis' in this process? Also, it wasn’t clear about where/how you developed your outcome pattern, by analysing the mechanisms and contexts - I would like more detail on this. More broadly, it would be good to see how you utilised the methodological 'toolkit' of critical realism, through processes of abduction and retroduction - at the moment I see some induction and maybe deduction, but that is still 'within' the data, rather than making inferences to generative mechanisms - how did you achieve this?

7. On Page 19, you mention the need for reflexivity in realist synthesis - I’d like to see where/how you used this throughout your realist synthesis and how if affected your overall outcomes.

Level of interest: An article of importance in its field

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'