Reviewer’s report

Title: Evaluating a Dementia Learning Community: exploratory study and research implications

Version: 1 Date: 24 Feb 2017

Reviewer: Fiona Poland

Reviewer’s report:

This is a timely and potentially useful paper for the field of dementia care research which in the main makes interesting use of recent methods (realist review and logic modelling) to make more transparent how it reaches its findings about the validity in practice of the mechanisms and outcomes of a dementia learning community. In setting out and testing that model the arguments and evidence underpinning its findings are made accessible and well-organised. However, there are some issues of definition, development and relation to context which are needed to strengthen the claims to knowledge being made. The depth and range of data collected and analysed makes this a promising contribution if these issues can be convincingly addressed.

While authors make a good case in the Background for a need to improve the dementia care environment no evidence is provided about what the care staff training need is, what might be need to be changed and how a Dementia Learning Community might address these. Setting this out would very much help strengthen another area in this manuscript, namely saying something about where the elements (content and mechanisms) of the model were developed and therefore would be reasonable to inform a logic model, which could then be used to test and enable their reproducibility. Considerable work is therefore needed to identify the gap in knowledge of both dementia staff training needs, the development of a DLC to test and also the rationale for the use of a logic model to do this. Doing this could provide more informative and substantial conclusions about the relevance and applicability of this logic model and the DLC case it relates to.

Some key definitions of underpinning methods concepts are also essential, particularly to explain and justify the use of a realist/ic evaluation design and also ii) the use of (what type of) logic model here. These would then need to be followed through in the Discussion, Conclusions and Implications in terms of judging the contribution to knowledge of the development and use of this logic model in this context.

More detail is also therefore needed to specify the process through which the basic components which informed the construction of the logic model were identified and selected.

Much of the rest of the paper is clearly presented (tables and diagrams are well-constructed and helpful) and argued, in relation to decisions about setting up measures, testing and reaching conclusions for the application in practice of the logic model. The evidence for the decisions reached about the final judgements on the components and coherence of the logic model appear sound with well-presented. The conclusions, can therefore be clearly related to the main findings in terms of content and context. However, something needed to be said to draw conclusions for
in what way the findings have addressed the given starting point in the need to strengthen the quality of the dementia care environment and the contribution of training to it. Perhaps more could have been said to specify what in what ways the proposed model and its use was novel and in what ways it might be seen as more widely useful.

The point is well taken (p.21) that the findings provide for a useful feasibility study.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

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