Reviewer's report

Title: A new conceptual framework for implementation fidelity

Version: 1 Date: 12 April 2007

Reviewer: Marlies Hulscher

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General

The authors address an important implementation problem: interventions or programmes sometimes work and sometimes fail in practice. Only by measuring whether an intervention has been implemented as intended, we can improve our understanding of how and why an intervention works. This will prevent potentially false conclusions about its effectiveness and may help improve outcomes.

The authors present a framework that can throw light on the mechanisms responsible for the result obtained in the intervention group.

The authors introduce the topic and its importance very clearly (introduction). Also, they clearly summarise the concept of implementation fidelity (the five elements) and the two conceptual frameworks as described in the current literature.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

In this paper the authors advance a third conceptual framework that focuses on the function of and relationships between the five theoretical elements of implementation fidelity. They start with adding two novel elements to the current frameworks: programme complexity and facilitation strategies (page 7). They do not explain the rational for including these two specific elements; why these and why not other elements?

The authors do not include the elements ‘dose/exposure’ and ‘programme differentiation’ in the outline of the framework on page 8, nor do they clearly state why they exclude these elements. On pages 9 and 10 it turns out that in their framework, these elements are very much linked to adherence: ‘dose is an obvious subcategory of adherence’ and adherence to ‘essential components’ (for which programme differentiation can be used?) may be sufficient. It would be more informative to the reader if this information is provided in the outline of the framework (page 8). These elements are also not included in Figure 1.

The authors state on page 10 that ‘No empirical research in any area of social policy to identify essential programme components in this way has yet been identified.’ Being a researcher myself with a special interest in the successful elements of quality improvement interventions, I do know that some research has been performed in the field of quality improvement in health care. Maybe the authors could have a look at the paper ‘Hulscher MEJL, Laurant MGH, Grol RPTM. Process evaluation on quality improvement interventions. Quality and Safety in Health Care 2003; 12: 40-46’ to see some examples. This paper focuses on how to describe the model programme and the adherence to it, so there are similarities with the paper of the authors.

The authors promise to propose a framework for understanding and evaluating implementation fidelity. They succeed in making the reader understand the framework. They do not provide, however, practical information on how to evaluate the concepts. Maybe the authors could provide, for each element, at least one clear example on how to measure the concept. This would be an important addition for both practitioners and researchers.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The authors sum up the elements of their framework in a Box (page 8). Their Figure 1 (for which a reference is missing!) is much more informative.
Discretionary Revisions (which the author can choose to ignore)

**What next?:** Accept after minor essential revisions

**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.