Reviewer's report

Title: Exposing the essential functions of a complex intervention: Case study of a context-sensitive process evaluation for a trial of shared care in mental health

Version: 1 Date: 6 August 2008

Reviewer: Christopher Dowrick

Reviewer's report:

The authors pose two linked questions: how did a complex intervention effect shared care; and is Realistic Evaluation useful as a method to evaluate process. This is the latest in a series of papers arising from a randomised controlled trial of shared care for long term mental illness, the main results of which were published in Br J Gen Practice in 2004. The authors place the paper in the context of the literature on analysis of complex interventions, and their main interest appears to be in testing the utility of their Realistic Evaluation model in explaining the changes that did – and did not – occur during the course of the RCT. They give a brief description of the processes involved in Realistic Evaluation, and then apply these to a well described series of case studies, to demonstrate that review processes may have been key variables in predicting change.

The data appear to be sound, and the manuscript adheres to current standards for reporting and data deposition. The writing is acceptable, though complex at times.

The paper does succeed in its first aim, of demonstrating which aspects of a complex intervention did or did not impact on the establishment of shared care arrangements and hence on changes in healthcare for patients. In this context the discussion and conclusions are well balanced and adequately supported by the data.

I am unable to comment on the success of the second aim, as there is insufficient information in this paper on the derivation, content and originality of Realistic Evaluation to allow for a critique of its utility. The authors have published a paper on this in Evaluation in 2005 (their reference 19) but I have been unable to access this through PubMed. The paper does de facto provide pragmatic justification for the utility of this method, but I do not think it works as a theoretical test for methods, which appears to be the authors’ intentions.

My overall conclusion is that this is a valuable paper, in that it does provide useful and generalisable insights into key process involved in the implementation of complex interventions.

Compulsory revision:

The authors should focus the paper on the first of their two stated aims, and
simply introduce Realistic Evaluation as their chosen method.

**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