Reviewer's report

Title: Effective Feedback to Improve Primary Care Prescribing Safety (EFIPPS) a pragmatic three-arm-cluster randomised trial: designing the intervention (clinicaltrials.gov registration NCT01602705)

Version: 2 Date: 6 May 2014

Reviewer: diane dixon

Reviewer's report:

This study describes the development of a theory based intervention to improve prescribing in general practice within Scotland. The intervention has been implemented within a three arm cluster RCT.

Scotland is a leading centre for patient safety research within the UK and internationally and the trial, of which this intervention forms a part, is significant.

The current paper describes the development of a theory based educational and feedback (tailored to individual GP practice performance) intervention that focusses on reducing high risk prescribing. The content of the paper is, therefore, suitable for publication within Implementation Science and is likely to have a wide readership.

However, as the paper is currently presented I feel there is a conflation between the description of the methods and the results, which presents an opportunity for revision and the presentation of a more detailed description of the results. I have detailed comments on each of the methods and results sections below.

Methods
The methods section, as currently described, would benefit from some additional details. For example, how many participants were involved in each focus group during the elicitation stage of the project? The elicitation study is at times described as the ‘predictive’ study. I suggest the term ‘predictive’ has a quantitative meaning that does not best fit with a qualitative method. I suggest the term ‘elicitation study’ be used throughout.

I would have appreciated additional details of the Delphi study. It was not entirely clear whether the participants in the questionnaire study were being asked to rate their own beliefs in relation to high-risk prescribing or whether they were rating the statement in a more general sense of them being related to high-risk prescribing.

The paper would benefit from a more detailed account of how the mapping to BCTs was done.

Results
Information presented in the results would be better placed in the methods section, e.g. information about the number of GPs mailed the questionnaire as
part of the Delphi study.

I would have like to have seen more details of the data generated by the elicitation study and the Delphi exercise. For example, a more detailed account of the statements generated by the elicitation focus groups would have been interesting, e.g. what type of barriers were identified. Similarly, how many statements reached consensus in the Delphi exercise and what was the nature of the statements that achieved consensus compared to those that did not.

As currently presented the results tend to describe the criteria for deciding whether or not an item was included. Whilst this information is important I was left wondering about the data generated by the elicitation study and the Delphi exercise to which these criteria were applied.

That said I feel this is an important study that has applied a clear theoretical framework for the development of an intervention to improve patient safety and has done this in a manner that should ensure the intervention (if effective) can be implemented as tested within the NHS. As such, I think Implementation Science should consider publication once the above issues have been considered by the authors.

**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 work in the same institution as one of the authors of this study.