Reviewer's report

Title: A systematic review of Impact of Routine Collection of Patient Reported Outcome Measures on Patients, Providers and Health Organisations in An Oncologic Setting

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Reviewer: Joanne Greenhalgh

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Minor essential revisions

The reference given to Figure 1 is incorrect - it should be Greenhalgh et al 2005 not Greenhalgh 2009.

Discretionary revisions

This is a traditional systematic review of the evidence of the effectiveness of PROs with two differences: (1) the authors limited their review to studies of PROs in adult cancer patients and (2) the authors included other quantitative study designs, not just RCTs. The authors also consider a wide range of potential impacts of PROs. However, the underpinning methodology is that of a systematic review. In my view, this methodology is most useful for answering the author's first research question, but less useful in answering questions 2 and 3. Systematic reviews can usually tell us whether something works or not, but they are much less useful in telling us who the intervention works for or why and how it works. So while I feel the authors have done a systematic review well in and of itself, I feel that it only really addresses one of their research questions and less so the other two. To fully answer those, I feel a different review methodology is needed and my preferred methodology would be a realist synthesis. However - this is my opinion and matter for debate, but important to state my position so that the authors and journal readers can see where I am coming from when I make the following comments.

I feel the manuscript could be improved if the authors provided clarification or further discussion of the following:

(1) The authors list their research questions in the last para of the introduction. The review methodology chosen is most useful in answering Question 1 but less useful and less successful in answering Question 2 and 3. Did they consider using other review methodologies to answer their research questions? Why did they choose a traditional systematic review methodology?

(2) The authors state their inclusion criteria in the section on 'inclusion and exclusion' criteria. The first criteria appears to be very broad and could also potentially include qualitative studies evaluating clinicians or patients views of the impact of PROS in practice. However, from the studies included it appears to
have been interpreted rather more narrowly as quantitative studies evaluating the impact of PROs on a range of outcomes. Could the authors clarify this? If this is the case, it would suggest that they might have had more difficulty in using the included studies to answer their second research question about potential mechanisms, which are most often to be found in qualitative studies.

(3) Why did they limit their review to adult cancer patients? Some very interesting work on the use of PROs in children has been conducted in the Netherlands and could have usefully added to the review.

(4) The grading used for Domain 2 (described in para 3 of the section 'data extraction and quality assessment) matches very closely a traditional hierarchy of evidence for evaluating the effectiveness of interventions and prioritises quantitative studies. As such, it fits most closely with answering the first research question. However, it is much less useful when evaluating qualitative studies on the mechanisms through which PROs might change clinical practice. Can the authors comment on this?

(5) Overall, the authors have been able to answer the first of their research questions but have been less successful in answering Question 2 and 3. It would be helpful to provide more detail of how their synthesis of the data enabled them to explore the mechanisms through which PROs change clinical practice and what factors influence this. Indeed - how did they synthesise the data? What led them to make the statements made the last para of the results?

**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 have no competing interests