Reviewer's report

Title: Intracluster correlation coefficients in cluster randomised trials: how should they be reported?

Version: 1 Date: 29 February 2004

Reviewer: John Ioannidis

Reviewer's report:

General

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

I am confident that you can address the following issues about this very interesting manuscript.  
1. I believe it would be useful to give specific data on how frequently the ICC is indeed reported in the past literature, based on data from the available empirical evaluations (e.g. refs 8-10). My understanding is that most commonly the ICC is not reported at all.
2. On page 4, middle: is there evidence that "the reporting of ICCs would appear to be increasing"?
3. In the end of the first paragraph of page 5, it would be useful to describe a little better the sample of 120 individuals in particular as to the split per country and also as to how many MEDLINE publications of cluster RCTs each of them has authored (none, 1-2, >3) and how many methodological publications on cluster RCTs (same categorization).

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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)

1. Page 3, first sentence: the term "individually patient randomized controlled trial" is a little weird. Moreover, the second sentence starts "in most of these trials, patients are allocated individually" which is a contradiction (all of these trials are "individually-randomized"). Would suggest using "randomized controlled trials" in the first sentence to clear the contradiction.
2. Please state upfront in page 6 who was the investigator who coded the responses. Is it possible also to clarify what key principles were followed in the coding and grouping?
3. In the second paragraph of the Results, the 3 areas were conceptualized a posteriori? Please clarify.
4. The first item on description of the dataset is nice, but you may wish to comment on how easy it would be to implement, e.g. how much space it might take, especially if there are many clusters involved.
5. The third item under description of the dataset also needs some clarification. How could one identify which components of an intervention have an undue influence, if the trial is not randomized according to such various components?
6. Please explain why adjustments generally lead to smaller ICC (page 7).
7. Page 8: the majority of authors - please be more specific.
8. The example at the end of the first paragraph of the Discussion is nice, but it may be better to add a couple more. Perhaps a table with 2-3 such examples would be ideal.
9. There are a few minor typos, e.g. no period prior to CONCLUSIONS, CONSORT in reference 7, etc.

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Discretionary Revisions (which the author can choose to ignore)

1. It might be worthwhile to add a few sentences on how ICC can be used for sample size calculations (e.g. mid of page 4).
2. You may wish to expand a bit on your claim about software packages giving different results. Is this so? If so, please explain.

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

Declaration of competing interests:

None