Reviewer's report

Title: Country development and manuscript selection bias: a review of published studies

Version: 1 Date: 4 June 2006

Reviewer: Evangelos Evangelou

Reviewer's report:

General
Authors deal with an interesting hypothesis but and the end I feel that they fall short to present their findings in persuasive way.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The authors should clearly state how the study sample size was selected. Moreover, it seems that the authors selected the sample size and then excluded animal studies, intervention studies or conference abstracts. Which rule did they use in order to replace the excluded studies with the eligibles ones? What part of the initial sample size were the excluded studies?

2. Chi-square test for trend was used to assess the differences between levels of country income. Is this test applied on the absolute changes of proportions of randomized studies, use of blinding and statistical significance? What the authors mean when they refer to "non-significant inverse association with the presence of randomization and direct non-significant association with the use of blinding"? The direction of the trend (even if it's not significant) should be clearly described. Why the authors choose to be so conservative (p-value less than 0.01) in order to consider a result as significant? The impact factor of which year was used for the linear regression model?

3. Results and abstract are not in accordance. Authors state that "country income had an inverse linear association with the presence of randomization and a direct association with the use of blinding". Based on the fact that authors used p<0.001 in order to define significance this statement could be misleading. Different p-values are presented for blinding (0.008 in abstract vs 0.05 in results). Frequency of statistically significant results of high income trials is said to be 88% instead of 82% which is the correct one, based on table 2. How this 53.5% came up as a probability of blinding in 2003 in low income countries?

4. The main hypothesis of the authors is that journals may publish articles based on study characteristics other than quality indicators. The authors compare the methodological quality and statistical appeal of published trials from countries with different developmental status and try to determine their association with the journal impact factor and language of publication! However, quality assessment is restricted to documentation of randomization, blinding and intention to treat analysis. The final analysis includes only randomization and blinding. Differences in the frequencies of blinding and randomization could be chance findings (in fact they are based on my calculations). Poor (or even fraudulent) documentation and adoption of CONSORT statement from journals may have affected this quality assessment and authors should comment on that.

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. The authors state in p.4 that a trial was called significant when the 95% confidence interval excluded 0 but this depend on the statistical estimate that is used in the particular study.
2. In table 1 it should be added that numbers in the parentheses represent the 95% CIs of the absolute change.
3. In abstract ´œBlinding should be changed to ´œblinding.
4. In p.4 ´œBlinding should be changed to ´œblinding.
5. In p.6 ´œData extractors should be changed to ´œdata extractors.

Discretionary Revisions (which the author can choose to ignore)
1. please re-do calculations on OR of blinding for year 2003 (table 2)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests