Reviewer’s report

Title: How effective is good domestic kitchen hygiene at reducing diarrhoeal disease in developed countries?: A systematic Review and reanalysis of the UK IID study

Version: 2 Date: 13 July 2007

Reviewer: Stephen R Palmer

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Review for BMC Public Health

‘How effective is good domestic kitchen hygiene at reducing diarrhoeal disease in developed countries?’: A systematic review and reanalysis of the UK IID study.

ASSESSMENT QUESTIONS

1. Is the question posed by the authors new and well defined?

No formal systematic review has been undertaken to answer this question. The question is well defined.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

The search strategy outlined in the systematic review is clear and sufficiently described to replicate the work. The selection of studies, appears robust but may not be readily repeatable as there is no indication of whether a selection protocol was applied in identification of the 48 studies and then the final 14 studies.

3. Are the data sound and well controlled?

- 14 studies were included in the systematic review. I wonder whether the criteria were too specific and potentially relevant papers missed. I acknowledge that the authors state that if negative studies were missed it would be unlikely that the basic conclusions would change.

- Little comment is made about the impact of bias, either information bias relating to the ‘self reported diarrhoea’, recall bias in the case of the case control studies and perhaps more importantly the reporting of exposures (practices) that may have contributed to the outcome - was there evidence of information bias, particularly exposure suspicion bias. Did the authors review the papers for bias and in their opinion did this impact any or the reviewed studies and therefore their conclusions?

- The authors acknowledge that the outcome (diarrhoea) was self reported in 4 studies if these studies were removed would the conclusions been different?
• Were any of these issues relevant to the IID survey?

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

I believe so

5. Are the discussion and conclusions well balanced and adequately supported by the data?

In the main the discussion and conclusions are balanced. The issues of negative associations and confounding are considered and the comments made on the study funded by a disinfection manufacturer are valid. However, I think there are a number of questions remaining:

• The impact of bias

• Given the heterogeneity of outcome measures and particularly risk factors, I feel that whilst the evidence does not support the hypothesis it can not infer no risk from poor kitchen hygiene and therefore the objectives of the review remain unanswered, do the authors’ think that a case control study be commissioned that considers the issues raised in the discussion?

• With the exception of the authors’ last conclusion: ‘Public health messages should be directed at encouraging adequate cooking of raw foods’, I feel the statements are supported by the evidence presented in the text. Whilst adequate cooking of foods is known to be an important contributor of foodborne disease, its importance in relation to other hygiene risk factors in the home is not sufficiently considered in this paper.

6. Do the title and abstract accurately convey what has been found?

Yes, with the exception of the conclusion on adequate cooking of raw food

7. Is the writing acceptable?

The writing is acceptable and the text easy to read.

REVISIONS

Revisions to be considered:

• Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

• Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
I feel that the issues I raised on bias and the erroneous conclusion should be considered before publication

ADVICE ON PUBLICATION

I am satisfied that this article does not raise concerns regarding publication misconduct.

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, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests