Reviewer's report

Title: Do personalised e-mail invitations improve recruitment of breast cancer survivors into a web-based behaviour change intervention?

Version: 3
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Reviewer: Shaun Treweek

Reviewer's report:

General
This is an interesting paper that asks a straightforward question and gets a result that we can all understand, which is great. I have a few comments and these are listed below under the headings used by Biomed Central.

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

Methods
1. I have a concern about the method of randomisation used. I don’t think this is a fatal flaw but it is a weakness if I understand it correctly. I think I’m right in saying that participants were randomised in groups and whether they got the personalised email or the generic one depended on the first letter of their last names. This is not true randomisation, it’s quasi-randomisation. There are two problems with this. Firstly, potential participants don’t have an equal chance of being allocated to one group or the other: depending on the week and the letter in the alphabet cut-off, a participant’s chance of being in the intervention group is not 50% but 100% or 0%. Secondly, it is possible to predict which group a person will be allocated to and that knowledge could, in principle at least, allow manipulation so that certain people end up in one group or another. I’m not suggesting this happened, just that the method used allows it whereas, say, a coin toss does not.

Given the above, if I have misunderstood something it would be good if the authors can reword their text. If I haven’t it would be good to explain in Methods why this method was chosen because I’m not sure why it was done like this. The authors should also add it as a limitation in their Discussion if I am indeed correct in my understanding of the authors’ method.

As I said, I don’t think this is a fatal flaw but it is a shame if my understanding of the randomisation method is correct because it is a methodological weakness.

2. The article title refers to recruitment but the article text refer to response rate and the two things are not necessarily the same thing. Did 100% of those who responded to both types of email go on to be recruited to the trial? In other words, for this study does response equate to recruitment? It’s possible given that the trial was web-based but in other types of trial response does not mean
recruitment. It would be good to make this point clearer in the article and to be sure that ‘response’ is the right word to use in the text (or ‘recruitment’ in the title).

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

Abstract
1. Last sentence. I’d add the confidence interval around the 1.5 effect.

Findings
2. I’d change ‘Findings’ to ‘Results’ and then add the heading ‘Discussion’ before the second paragraph of the current ‘Findings’ section, ie. the Discussion would start ‘Previous research has shown..’ since the text that follows is Discussion not Results.

Discussion
3. It would be good to add a sentence or two about why so few of the 43,150 members of the breast cancer organisation who had agreed to be contacted about research responded. It would be worth raising this in the context of generalisability I think.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)
None

**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 declare that I have no competing interests.