Reviewer's report

Title: Critical appraisal skills training for health care professionals: A randomized controlled trial

Version: 1 Date: 7 October 2004

Reviewer: Alison J Brettle

Reviewer's report:

General

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

The question is well defined by the authors. Although the general topic area is not new (this is acknowledged by the authors by the referencing of previous reviews in this area), conducting an RCT in this setting (with practising clinicians rather than medical students) is new.

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

The methods are clearly described and on the whole sufficient details are provided to replicate the work.

Some authors would argue that an RCT is not an appropriate method of evaluating an educational intervention, others would disagree with this and the authors have acknowledged this and the limitations of the study.

Little information is given about the tools used to measure the outcomes of the study. A reference to a previous study is given where the tools' validation is described, however in this article, there is little information given on the measure itself and no copy of the measure. The tool itself does not appear to measure the actual critical appraisal skills of the participants, rather their attitude towards critical appraisal and their perceived confidence in carrying out critical appraisal. This does not seem entirely relevant in assessing the effectiveness of a critical appraisal session, neither does it assess whether the objectives of the workshop were achieved.

Critical appraisal skills were also assessed using an internally validated framework. Insufficient information is given about this to replicate the study.

3. Are the data sound and well controlled?

The authors acknowledge that the study is small, and discuss this. Although the participants are stratified by profession, there is no control over grade or number of years experience. In addition no baseline assessment of their critical appraisal skills was made – therefore how can an improvement in skills be assessed?

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

Yes

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

More discussion around the issue of not using a baseline assessment in the study would have been useful.

The authors mention that they made attempts to improve the response rate in order to improve the generalisability of the study, however there is no mention of the implications of the relatively low response rate and self selected nature of sample on the results of the study.

P16 the authors mention that it is probably unrealistic to expect that the ½ day workshop should result in a change in professional behaviour. This may be true, but it is realistic to expect that such a workshop would actually improve the health professionals’ critical appraisal skills. There is little discussion about this.

P16. The authors suggest that it is important to reassess the objective of critical appraisal training and suggest that it may be more appropriate to sensitise participants to the availability of high quality evidence. Courses already happen to do this – courses on literature searching, finding the evidence or other similar courses or training available via NHS library services of the National Electronic Library for Health. These are equally if not more important than critical appraisal (because if you cannot find good evidence in the first place then critical appraisal is a waste of time). Another solution would be to train certain levels of practitioners in evidence based skills rather than all practitioners.

A further issue would be the longer term outcomes of the study and whether participants had practised or used the critical appraisal skills that they had learned. Is there any evidence that the more that clinicians use critical appraisal skills, the better they get? Also, are they getting chance to put the skills into practice, the questionnaire appeared to ask what they read not whether they used the CAS skills.

Costs – the costs are well described, however there is little discussion about whether the authors believe that providing CAS training is cost effective.

Conclusions – the conclusions are very brief. Very little is stated about the lack of evidence of effectiveness or of the costs involved.

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

On the whole the title and abstract accurately convey the content of the paper. The exception to this is the conclusion in the abstract is slightly misleading. The abstract suggests limited support for the effectiveness of CAS training whereas the actual conclusion indicates small improvements in knowledge and understanding of the medical literature and appraisal skills.

7. Is the writing acceptable?

The article is well written, in a clear and concise style.

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

1. Provide more discussion regarding the lack of baseline data and the implications of this on the study and results.

2. Change the conclusion in the abstract to more accurately reflect the conclusion of the paper.
3. Expand the conclusions. Some of the more “negative” aspects could be included and some of the implications could also be included here rather than in the discussion section.

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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)

- P 4, para 2, line 7 missing the. Should read In the UK and abroad
- P8, para 3 line 1 should read Critical not critically
- P12, bullet point 4 line 1 repeated ability
- P17 line 2 insert “of the” between understanding and medical literature

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Discretionary Revisions (which the author can choose to ignore)

4. Provide more discussion on the low response rate and self selected nature of sample

5. Provide more information and discussion about the outcome measures used.

6. Provide more discussion about whether it is realistic to expect such a training programme to improve critical appraisal skills.

7. Consider the debate about the refocus of critical appraisal skills training to finding the evidence and the role NHS Libraries and the new National Library for Health can play in this.

8. Expand the discussion on the cost effectiveness of critical appraisal skills training.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes

Declaration of competing interests:

None