Reviewer's report

Title: Evidence-Based Medicine Training During Residency: A Randomized Controlled Trial of Efficacy

Version: 1 Date: 25 June 2010

Reviewer: Judy Shea

Reviewer's report:

I read this manuscript three times and have very little to add. It is a small, single institutional study that adds incrementally to the growing literature that looks at ways to teach EBM principles. It is competently done. It is clearly presented. There are no fatal flaws. I will briefly address each of the questions asked of me.

1. Is the question posed by the authors well defined? Above average
2. Are the methods appropriate and well described? Above average
3. Are the data sound? yes
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? See below
6. Are limitations of the work clearly stated? See below
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? I think so
8. Do the title and abstract accurately convey what has been found? Title – no abstract - yes
9. Is the writing acceptable? yes

Minor essentials comments:

Some recent citations are not included, for example,

Abstract:
results – be a little clearer regarding timing
conclusions – new results are presented that were not in the results section
It is not so clear that the ‘test’ measures skills
Say in the abstract that you are measuring self-report use of secondary evidence resources.
Limitations to add-

Contamination

You do not know what they knew/had been taught at baseline…many medical schools are offering EBM skills.

When you asked what they had use in the past week, you did not control for what service they were on (e.g., ICU would be different than elective or vacation.)

Concern: the data are a minimum of 2 years old – 6 years since the beginning. A lot has changed since then. Why so old? How might this matter?

Analyses and Results: It seems your primary questions was (should be) are there group differences (between groups test), controlling for pretest. But this seems to get ignored and there is relatively more attention to within group differences over time.

Why present resident sex? What does that have to do with the study?

Table 1 needs a footnote to indicate no differences between groups..but then again you were not powered to find them.

Para 2 – it is hard to make the text match Table 2 when one has differences and the other has means. Please align them. Also, I did not follow the analytic sequence – was it first a t-test of differences, then an ANCOVA controlling just for baseline score and then you gave the adjusted differences and then you said the first ANCOVA was significant? Or did you do another ANCOVA? If so, what else what controlled for?

Section on literature searches – first sentence – is this a between or within group comparison? This section has a lot of number. A table might make an easier presentation.

The paragraph on self-assessment was not set up before it appeared in the results.

Discussion

Para 1 – would say first there were no between group differences as this was your main question

Para 2- needs to focus on why no group differences

Para 2 – it is hard to argue sample size was too small to detect difference when the table with the means (without statistics) shows there are no differences.

Good news: All residents are getting it and getting better over time!

Bad new (or good) this appears to be independent of your curriculum.
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