Reviewer’s report

Title: ARCADO - Adding random case analysis to direct observation in workplace-based formative assessment of general practice registrars

Version: 0 Date: 29 Sep 2015

Reviewer: Adam Gordon

Reviewer's report:

This is a well-written article that considers the addition of random case analysis to direct observation in external clinical teaching visits undertaken as formative assessments in the context of an Australian general practice training programme. The background is well stated, the objectives clearly stated and the methods, analysis and results reported in a transparent manner in keeping with COREQ requirements. The conclusions drawn are justified by the data presented and the article is of broader relevance since many of the questions and issues addressed here apply in other countries and settings such as the UK (where I work) and in acute and subacute hospital practice (where I work).

My only issue is a minor one but it is one that I’d like the authors to give some thought to and address through amendments to the manuscript. Some of their findings are new because they pertain to the addition of RCA to DO and the trade offs, opportunity costs, etc, associated with this new hybrid assessment modality. Some of their findings, although real and valid, are largely a rehash of previously reported findings about RCA or DO. An example would be the observation that doctors modified their practice as a consequence of DO - this is not new. Another would be that doctors felt there was a summative component to assessment, even when reassured it was formative. This is similarly not new. I think the authors have two options here:

- one would be a quick fix (although it would be a potentially less robust response to my criticism) - this would be to add a section in the discussion where they consider which of their findings are truly about ARCADO and therefore new, relevant and exciting and which which ones are simply observations about RCA or DO, and therefore retreading old ground.
- one would be more work (and would be a more robust response to my criticism) - this would be to rejig the reporting of the results to separate out findings about ARCADO from findings about either RCA or DO.

I should emphasise that either of the above would satisfy me - which the authors chose to adopt will probably depend upon their own sense of perfectionism!

**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**

If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**

If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**

Please indicate the quality of language in the manuscript:

Acceptable

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