Reviewer's report

Title: An intercalated BSc degree is associated with higher marks in subsequent medical school examinations

Version: 1 Date: 30 July 2008

Reviewer: John C Mclachlan

Reviewer's report:

This is a well written paper on a topic of significant interest, and I have no hesitation in recommending it for publication.

There are a few discretionary points I would like the authors to consider.

1) While the statistics are appropriate, they are also probably unfamiliar to the majority of likely readers, and it might be worth adding a few sentences of explanation of the modelling approach taken.

2) Is the use of p<0.01 a calculated figure, based on the number of multiple comparisons, or a reasonable guess allowing a margin of safety? This matters, I think, because the 5th Year OSCEs, at p=0.02, are not significant by this criterion, but if the choice of p<0.01 was arbitrary, then this might be a Type 2 error. (I don’t often accuse authors of having been too hard on themselves, but I wonder if this is the case here!).

3) Following from this, what would happen if you used a different statistical approach? If you matched each IC 3rd student for gender, cohort, maturity, and baseline performance with two or three non-IC students, would the increased power of the matching give you significant results compared to the methods you chose? I really don’t know the answer to this – it isn’t a trick question!

4) What’s the impact of the use of the 21 point marking scale. This isn’t linear. Could you (perhaps in the future) use normalised raw scores of performance on OSCEs and exams rather than a University grade scale?

5) Do you have any data (or comments!) about how typical Aberdeen is of UK medical schools? If it was very aberrant, that might feature in your ‘limitations' comments – if not, it might be a comfort to readers.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests’