Author's response to reviews

Title: Teaching evidence based medicine literature searching skills to medical students during the clinical years - a protocol for a randomised controlled trial

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Version: 2 Date: 7 April 2011

Author's response to reviews: see over
7 April

Dear Editor,

MS: 7668651351048784
Teaching evidence based medicine literature searching skills to medical students during the clinical years – a protocol for a randomised controlled trial

We thank the reviewer and editors for comments on our above titled protocol. We have read through the comments provided by the reviewer and have amended our manuscript accordingly.

We believe that this revised version reflects the changes requested, and has further strengthened the manuscript for publishing in BMC Medical Education. We have provided a point-by-point summary to the comments as requested.

We look forward to your favourable response.

Please feel free to contact me should you require anything further.

Kind regards,

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Reviewer’s Report:
The author pose the question: “No studies to date have investigated when such EBM programs should be delivered to medical students – either in the pre-clinical years, or during years in which students are based in a clinical environment.” And again in the Discussion: “identify the optimum time for educating medical students in evidence based medicine literature searching skills”
We have modified these sentences within the Introduction (page 4).

This question suggests a comparison of 4 groups; pre-clinical EBM/no EBM vs clinical EBM/no EBM (or 3, deleting clinical/no EBM for ethical reasons). Their implied outcome comes later: able to implement [searching the literature or critically appraising evidence] throughout their clinical years. Outcomes should be assessed immediately after “treatment” and then again in the clinical years (fifth year?).
We would like to clarify that the study will be a comparison of two groups, one group assessed before they begin their clinical rotation, and one group assessed during their clinical rotation. We have included a Figure to illustrate this (page 12).

Haven’t workshops been studied a lot? Shouldn’t we be looking at workshop + reinforcing environment (e.g., library resources? Journal clubs?)? Are there such confounders already in place? MMM MMM
The proposed EBM library workshop is an adjunct to the formal EBM teaching that the students will receive in their third year of the MBBS degree. We have included this explanation further in the methods section (page 7).

Following the flow of participants in the study:
1. Population: The authors should say something about what other sorts of medical students are similar to Monash students.
We have included a paragraph on page 6 to comment on similarity between Monash medical students and other students.

2. Baseline: The groups should be assessed, especially since they took the first-year class. Are there other student attributes that may serve as confounders? The authors mention specific potential confounders: clinical maturity, perceived relevance in the clinical environment and continued practice within this context may influence a student’s competence in EBM skills.
All of the students in this study will be at the same clinical maturity. As third year students this will be their first exposure to a clinical environment. A future study may compare the EBM skills of third and fifth year students, however this is currently out of the scope for the proposed study. We will be measuring the students’ self-perceived competency in EBM via the Evidence Based Practice Questionnaire, which we will analyse as potential measures of confounders in this study.

2. Randomisation: Should the sites use block randomization, to address site effects.
We have amended the randomisation accordingly on page 6.
3. Control: Is it ethical for some students to get no EBM training?
Under ‘Intervention’ we have stated that “These students (in the control group) will be able to attend the workshop at the conclusion of the study when outcomes are measured.” (pages 6 and 7).

4. Sample size: What’s important is the difference that the authors think is meaningful and the SD of the data, not what difference was found to be statistically significant.
We have included a sentence to explain why a difference of 13 is both statistically significant and meaningful in this study (page 7).

5. Analyses: Regression could also be done using confounders (and site) as independent variables, in addition to “treatment” condition.
We have included on page 8 that logistic and linear regression will be used in the analyses.

p 6: “Students who are unable to understand English”: Are there really such students matriculated in an Australian medical school?
The Monash MBBS degree consists of local students (born in Australia) as well as a large (one-quarter) international cohort of Malaysian based students, for whom English is not their first language. We accept the comment made by the reviewer and have amended the sentence accordingly on page 6 under ‘recruitment’.

P 7: “this study will by”: “…will be…”
We have corrected this sentence (page 7).