Author’s response to reviews

Title: Predicting medical students who will have difficulty during clinical training

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Author’s response to reviews:

Dear Reviewer

Thank you for your very helpful and interesting comments on this paper.

Your interpretation of the study method is correct, though we would emphasise that the Cox analysis allows us to calculate hazard ratios because the length of time in the study [and therefore risk of being awarded a conditional pass or fail] is the same in both the study and control groups. Yes, some in the study group have only one year in the study and others have 3 [and so the risk is different within the group] but this asymmetry also applies to the control group and so we would argue that the comparison between groups is valid. We have changed “struggling” to “at risk” and “having difficulty” where appropriate.

We would like to make a general point of clarification, which we have now also included in the paper. Our in-course judgements (that is, those that form the basis of this study and that were undertaken during the year) are actually structured. Such judgements are made on the basis of OSCE stations, mini-CEX observations and the like. We then ask the supervisor to make an overall judgement based on these structured assessments, not on their global impression of the student. We realise this may differ from the practice in some other medical courses. This might explain why the reader found it hard to differentiate our ‘assessments’ from the end of year OSCE. We have clarified this in our revision.
Suggestion: Your main argument is around communication skills, so I think it is essential that you validate that your poor “communication skills” category accurately reflects poor communication skills. If you cannot validate it, then I believe it should be renamed to reflect the items that comprise it. Without doing this I find the conclusions of the abstract difficult to justify.

Response: As you correctly point out, this is potentially misleading and may inflate a reader’s impression of how much difficulty the students were having with “pure communication”. At this stage we cannot separate data related to pure communication skills from other components of clinical acumen. We think the simplest solution is to take up the suggestion and rename this category ‘clinical skills’.

Suggestion: I think the paper would be improved by listing (p8, line 55), the number of students at each timepoint at the end of the study period – A mean of 2.4 and a range of 1-4 could cover a variety of different distributions. Alternatively, this could be added to fig 1. My reason for suggesting this is that if many students were early in the course when the study stopped, and most CP/F come a little later, it may well skew your results. The 50% needs to be clarified, or better broken down by struggling category.

Response: As explained above, we used Cox proportional hazards analysis that takes account of varying times of follow-up. The methods are clear that the population include 3 classes (Y4, Y5, and Y6) of roughly equal size. However we have now included a median years of follow of 2 years. With regard to 50% of the study group having difficulty with history taking, the denominator is the number of students in the study group [n=203]. This means that 50% of the students with difficulties were also identified as having problems with history taking in at least one of their end-of-run assessments at some stage in their clinical training [years 4, 5 and 6] [see figure 1]. This judgement would have been made by a tutor after discussion with the attachment convenor at the end-of run assessment. This did not include their 5th year final OSCE results which were not used for any part of this study.

Suggestion: It should be simple to add these four data points, and I think this would help the reader significantly.

Response: We think the time-points you are referring to are “year of advanced learning”, (4th, 5th and 6th) so we have included the percentages of CP’s awarded at these time points. We have combined 4th and 5th years for simplicity.

Suggestion: I would suggest a brief line on the trustworthiness of the module grades, either early in the paper if good, or under the limitations if not always as reliable as you would wish for.
Response: We agree – see our comment above about the nature of the in-course assessments

Suggestion: you could change to “...others were observed for fewer” or change to “...others were observed for less time”, or keep as is and upset a handful of grammar pedants!

Response: We agree and have made that suggestion