Author's response to reviews

Title: Students Benefit from Developing their Own Emergency Medicine OSCE Stations A Comparative Study Using the Matched-Pair Method

Authors:

Wolfgang Heinke (wolfgang.heinke@medizin.uni-leipzig.de)
Daisy Rotzoll (daisy.rotzoll@medizin.uni-leipzig.de)
Gunther Hempel (gunther.hempel@medizin.uni-leipzig.de)
Michaela Zupanic (Michaela.Zupanic@uni-wh.de)
Patrick Stumpp (patrick.stumpp@medizin.uni-leipzig.de)
Udo X Kaisers (udo.kaisers@medizin.uni-leipzig.de)
Martin R Fischer (Martin.Fischer@med.uni-muenchen.de)

Version: 6 Date: 1 August 2013

Author's response to reviews: see over
Dear Editor,

We would like to thank you and the reviewers for your valuable comments and advice on our manuscript. Based on the comments of the reviewers, we have completed the revision of our manuscript, which we believe has now been substantially improved. We have also ensured that the revised manuscript conforms to the journal's style.

Please find enclosed the revised manuscript together with our responses to the reviewers’ comments and the action we have taken.

As you have recommended, we have had the language and grammar edited by a native English scientific translator.

We hope very much that our manuscript can now soon be published.

Once again, many thanks to you and the reviewers for your help and valuable comments.

Yours sincerely

Wolfgang Heinke

Enc.

Responses to the reviewers’ comments
Comments of Reviewer 1:

Answers and Action

1. There is still confusion in the methods section of the abstract. Did the intervention group develop and test “its own examination stations”? This would mean that they developed the stations they were later on actually tested and rated in. As I understand it the intervention group designed and tested emergency medicine OSCE station as an exercise but was later on tested in other emergency medicine OSCE stations designed by the teaching staff. Please clarify this aspect in the abstract and please also clarify it in the last paragraph of the introduction. The term “their own OSCE stations” should better be avoided throughout the whole manuscript.

We agree that the term “their own” OSCE station is a little confusing. Therefore we have rephrased the corresponding sections as suggested by the reviewer.

2. Thank you for providing information about the curriculum in Leipzig. Please cite the website of the catalogue of learning objectives in the methods section as reference including date of access. It should be adapted twice in the method section.

Thank you for this advice. We have followed the suggestion of the reviewer and cited the website of the catalogue of learning as a reference.

3. If I understand it correctly the intervention group also tested the stations that they had developed as participants and raters whereas the control group did not. The word “self-OSCE” is a bit misleading. It should be changed to testing their “self-made stations in a simulated OSCE” or a similar phrase, e.g. test-OSCE, in the method section to emphasize the difference. Please change the term you introduce for this throughout the whole manuscript.

Again, we would like to thank the reviewer for this tip. We have modified the manuscript correspondingly.

4. As the OSCE circuits were set up in parallel, please provide information whether the intervention and the control group were tested in the same circuit or in different ones.

As requested by the reviewer we have provided this information in the corresponding section of the methods: “The study participants were randomly assigned to one of the OSCE circuits by the staff of the registrar’s office, who were not involved in the study (i.e. the circuits were randomly filled with participants of the three study groups; participants completed either circuit 1 or 2).”

5. As a total of 26 from 321 students participated in this study it would be interesting for the reader to know what the mean and SD was for the remaining 295 students in the OSCE. Please provide these figures in a sentence in the results section so the reader can compare it to the 223 points that the control group reached. No statistics need to be calculated.

We agree that it could be valuable for the interested reader to know the score of the entire semester. Therefore, we have added the following sentence to the corresponding section of the results: “The other participants of the emergency medicine OSCE of the 7th semester (n=275) who were not in any of the three groups scored on average 216.6 ± 16.5 points. “

6. It is described that some stations had checklists and some stations were rated by global rating. How was the standard setting done for the stations that had global rating, i.e. how did raters judge when to give e.g. 1 or 4 points and how was this trained in the rater training so each raters used the same standards? Please provide some information about this.

We hope that we have made this point more clear by the following section: “They were given thorough training in their examining duties beforehand. This began with a 45-minute theoretical training session on OSCE for all raters one week before the OSCE. On the day before the OSCE, once the OSCE course had been completely set up, the raters were trained at their stations. A responsible lecturer
demonstrated the performance expected of examinees at each station. The raters were also shown how to use the checklists or to make a global rating. On stations with global rating, the raters were given written guidelines on how to award points in order to minimize interrater differences. The raters were given a final briefing 30 minutes before the start of the OSCE. This training was intended to minimize raters' impact on the test results. In addition, after each round of tests, the points awarded at each station were reviewed by the first author of this study (W.H.). If any anomalies were found (e.g. above-average or exceptionally low scoring), the raters were given additional training."

7. I would like to address again one comment from the previous review which I apparently have not been able to express clearly enough and I still do not understand it clearly from the revised manuscript. The “test OSCE group”, the 20 students who were the test group for the real OSCE before it was implemented, reached 223 of 250 points in it without having had any emergency training. The 13 students from the control group of this study, who had had emergency training, also reached 223 points in the then real OSCE after their emergency training. To me this seems a bit worrisome with respect to the effect of the emergency training itself (only the 13 students from the intervention group reached more points) and this should be commented on in the discussion section.

Evidently we did not express this aspect clearly enough in our manuscript. The test OSCE group scored 223 points in the exam OSCE (i.e. after practical training in emergency medicine). The scores compared between the groups were the scores of the summative OSCE after practical emergency medicine training. We have expressed this more clearly in the revised vision of our manuscript: “The students in the test OSCE group scored 223.2 ± 13.4 points in the regular exam OSCE.” And: “In order to avoid a familiarity bias with the OSCE format, we compared the OSCE scores of the intervention group to the scores of these 20 students (= test OSCE group) obtained during the regular exam OSCE.”

Minor Essential Revisions

8. Please change the German abbreviation POL to the English abbreviation PBL throughout the manuscript where it occurs.

OK

9. Please provide means in a similar way throughout the manuscript either all with one or all with two digits behind the comma.

Thank you for thoroughly checking the manuscript.

OK

10. In table 3, please provide all OSCE means with a comma in the control group like it is done for the intervention group.

OK

11. In table 4, please use dots instead of commas for the numbers.

OK

We would like to thank the reviewer for thoroughly reading our manuscript. We feel that due to the reviewer's comments, our manuscript has been substantially improved.