Author's response to reviews

Title: Assessment of clinical competencies using clinical images and videos

Authors:

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Version: 4 Date: 17 March 2013

Author's response to reviews: see over
Dear Mr Adrian Aldcroft

Re: Responses to reviewers comments/ MS: 2088485610824927 - Assessment of clinical competencies using clinical images and videos

Thank you for considering the above manuscript for publication in BMC Med Education Journal. We thank the reviewers for their rich feedback. We have reviewed and edited the manuscript accordingly. The table below provides point by point response to each comment.

The authors declare no conflict of interest at all, such a statement was added to the manuscript, as well as authors’ contribution.

We report that the University of Sharjah Ethics and Research Committee has approved the project and a statement was added at the end of the method section.

Finally we have changed the formatting to conform with the BMC requirements and asked to colleagues to improve the text linguistically.

We thank you again and looking forward to your decision asap

Best regards

Nabil Sulaiman and Hossam Hamdy
Responses to reviewer’s comments

Reviewer: Stuart Haines
Reviewer’s report:
While the close correlation between student performance on the CIVA and OSCE suggests that they assess similar cognitive abilities, other factors may have also influenced the results. More details are needed with regard to the development of the CIVA and other assessments in order for readers to draw their own conclusions (and replicate the method).

Major Compulsory Revisions

Methods

1. Additional details regarding the CIVA development process is needed.
   a) Who are members of the “Clinical Skills” team? Is this team also responsible for the development and implementation of other assessments in the curriculum (e.g. OSCE, DOCEE, and written exams)?
   b) Do all of the assessment in the curriculum follow a similar blueprint? If so, in what ways are they similar (and dissimilar)?
   c) When was the CIVA administered in relationship to the other assessments in your curriculum? Where items included on the CIVA pilot tested or validated in any way prior to being administered to students? If so, please describe the process.
2. Please describe the other assessments (OSCE, DOCEE, and written exam) in a bit more detail.
   a) Is the “written exam” a single exam or a series of exams?
   b) Was the written exam a multiple-choice examination or essay? When were these assessments administered to students and under what circumstances?
   c) What content was included on the written exam? What skills were tested or observed on the OSCE and DOCEE?
3. How are the CIVA items scored? Who scores them? What criteria are used to determine the student’s score on each item? Is more than one person involved in scoring an item? How are differences in raters managed? Are all items on the CIVA scored equally or are some items given more weight than others?

1. The Clinical Skills team (CST) is comprised of six clinical tutors; a lecturer, a senior faculty (NS) as well as clinicians from the University of Sharjah Hospital. The team is responsible for the assessment of clinical skills, in addition to teaching at the College of Medicine. The team director is a member of the assessment committee, which is responsible for formulating each exam’s master blueprint and monitoring its quality. The CST is responsible for implementing OSCEs and CIVAs in accordance with the master blueprint. Each OSCE and CIVA is reviewed by the assessment committee for validity and mapping based on the master exam blueprint.

1+2. The standard final year CIVA is comprised of 50 stations. For each image, the questions as well as model answers are reviewed meticulously to prevent overlap. The CIVA and OSCE are covered on the same examination day, starting early morning and ending in the afternoon. Students from the morning and afternoon groups are further subdivided into two groups that are examined in the OSCE and CIVA in alternating turns. A few days prior to the test, the CIVA is pilot tested in the same examination hall to ensure the quality of images, sounds and functionality including time automation.

(Background section). The DOCEE is designed to observe and assess the student’s full encounter with real patients. Each DOCEE station spans over a period of 30 minutes where the examiner goes through a standardised check list to assess performance. As for the student’s depth of clinical knowledge, it is tested using 100 A-type Multiple Choice Questions (MCQs), in addition to 100 Extended Matching Questions (EMQs). All final exit exams are conducted over a period of one week.
4. Methods, Paragraph 3, Questionnaire. Please describe the survey instrument administered to students in a bit more detail. How many items were included on the questionnaire? Please include a short summary of what each item asked.

What were the “anchors” for each of the points on the 5-point Likert scale?

RESULTS

5. Work load is considered a primary advance of administering this type of assessment when compared to OSCE. However, no data is provided. How much time is required to develop a CIVA item? How much time is required to administer the assessment? How many proctors are required during the assessment? How long does it take to score the assessment (time per item, time per student per item)?

DISCUSSION

6. Are the items included on the CIVA similar to the OSCE stations? While I agree that a typical OSCE assesses clinical reasoning and decision making in a similar manner to the CIVA, the high correlation between these two methods may also be due to a priming effect. If the content of one assessment is quite similar to the content of the other assessment (and each is administered in close temporal proximity to one another), this could easily explain the high correlation between the two assessments. In other words, the assessment construct AND the content of the two assessments were similar and thus students performed similarly on them.

Minor Essential Revisions

Discussion, Paragraph 2. The phrase “epileptic fits” is inappropriate and insensitive. Please use the term “seizures” or “status epilepticus” instead.

Quality of written English: Needs some language corrections before being published
Reviewer: Ray Peterson

Reviewer's report:
The authors have developed an interesting and novel approach in assessing through the CIVA, which adds to the range of options of assessing medical students. The study is clear in intent and the authors have developed a logical plan to address their aim for the study. The results are clear and relate to the purpose. They have provided evidence to address the validity and reliability of the method they have used.
I have some specific comments that should be considered:

Minor Essential Revisions
1. Abstract - Results section. The third sentence starts with "The majority of students..." This is somewhat vague, and so quantification would be useful.
2. Page 4 - Second paragraph beginning "In assessing students'..... It needs to be clear that you are now talking about the Sharjah Medical Program and not generally.
3. Page 6 Questionnaire first line has (147). It could be useful to indicate the sample size for both batches (n=52 and n=95).

Discussion: There was no discussion on the student responses to the questionnaire.

Discretionary Revisions
Page 7: The questionnaire results could be better presented in a Table, especially if there were more items that were not included in the results. This would provide a better picture of student perceptions.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being

English language corrections were made throughout the paper.

Reviewer: Ray Peterson

1. Eighty two percent of students were very satisfied/ satisfied with CIVA process, contents and quality of videos and images.

2. Sharjah students

3. (n=52 and n=95) sitting

Discretionary Revisions

English language corrections were made throughout the paper.