Author's response to reviews

Title: Casebook: A virtual patient iPad application for teaching decision-making through the use of electronic health records

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Author's response to reviews: see over
Subject: Response to Reviewers

June 11, 2014

Dear Madam/Sir,

Dear Reviewers,

Please find enclosed our further revised manuscript. The article has been shortened by removing text from several sections, such as the Reducing multimedia reliance section and The power of the plural section. Two of the four screenshots (Figures 1 and 4) and their corresponding text and captions have also been removed to shorten the article.

Below are details of all changes made regarding the specific reviewer comments.

Response to reviewer: Uno Fors

1) Abstract and Background: Please adjust all statements re cost and time and instead argue that the possibility to use EMR data is very interesting (which it really is).

The abstract has been adjusted, and we have made adjustments throughout the entire text to remove all comments regarding VP production costs.

2) Page 2 Abstract – Results. As you have described later in the manuscript, it is a manual process that creates the file that then is read by Casebook. Please adjust this.

We must apologise for the confusion here: when we say “The application has been designed to read patient cases that consist of” what we mean are the finished case files that are manually created for use in the Casebook app. This sentence has been correct to make it clear as to what is meant.

3) Abstract – Conclusions. Modern VP-systems can both be used to create cases with ease as well as to allow exchange of cases.

The text in the conclusion section has also been removed and edited.

4) Page 4. There is a chance that when you write down a lab value, you can mistype and make it wrong. But since Casebook uses manually written annotations, your solution has about the same chance/risk of using incorrect data. So, please adjust your comments regarding this issue.

Agreed entirely, and this was also brought up Dr Sumner. The text has been edited to highlight this.

5) “The creation of Virtual Patients is an expensive undertaking.”

This text has been removed.
6) Further on, the use of Huang’s paper and spend nearly half a page on that seems to be misleading the reader. Please instead of saying that the main problem is cost, mention you bright idea instead of using real medical records as the base for creating VP cases. The text in this section regarding Huang’s paper has almost entirely been removed, and new text has been included.

7) Page 7 “Virtual Patients are too costly to produce for this plurality to be achieved.” This sentence has been removed, as well as surrounding text that purported this to be correct.

8) Page 13: Were these and the previously mentioned procedures used in your app? If not, please tell why not. Provisioning profiles are an iPad-level feature, and are used by administrators to ensure the security of sensitive data, etc. Apps do not make use of such features per se; rather the iPad devices themselves use these features for enforcing security properties stipulated by a university or other institution.

9) Illustrations. Figures 2 and 3 still contains useless info. Please correct this, or omit these images. Two of the four images (Figures 1 and 4) have now been removed to shorten the article’s length and readability, and the remaining images (Figures 2 and 3) now mirror the content of the example case provided in Additional files 1 and 2 so that no dummy text exists.

Response to reviewer: Walton Sumner

1) This explanation on page 4 does not concede a wide variety of known errors in medical record data. This was also brought up by Dr Fors: this text has been corrected to acknowledge the fact that errors occur in electronic medical record data.

2) Dr. Fors challenged the assertion that common or prototypical conditions are unlikely simulation topics. The authors refute the challenge on page 8 (“The likelihood of cases being developed that deal with patients exhibiting common or prototypical conditions is, we believe, low.”) without references. As this statement was contested by both referees, this text has been removed, and throughout the article we have removed references to cost being a major inhibitor to patient case creation.

3) The word "essential" in this sentence begs for a reference: "Collecting pools of cases is also essential in improving student perceptions of preparedness." The original sentence was overly emphasised, and we have updated this sentence accordingly.

4) In responding to reviewers’ comments, the authors in some cases have overemphasized points somewhat awkwardly. Agreed entirely! The sentence referred to here has been corrected and replaced with more readable text.

5) A mangled version of Cicero’s discourse on hedonism still strikes me as unhelpful filler text in figures 2 and 3. We agree completely with the comments made here. All figures have been updated to mirror exactly the example case provided and now contain no dummy text.

6) Are the responses in Figure 4 complete and locally routine? The data were in fact gathered from a local clinical case, however, we have removed Figure 4 (as well as Figure 1) in order to shorten the length of the article, as was requested by the editors.
Closing Statement

We hope that we have fully addressed the concerns of the reviewers appropriately, and we would again like to thank the reviewers for their time and efforts.

Yours faithfully,

Marcus Bloice