

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Quality of randomised controlled trials in medical education reported between 2012 and 2013: A systematic review protocol.
<b>AUTHORS</b>	Tolsgaard, Martin; Ku, Cheryl; Woods, Nicole; Kulasegaram, Kulamakan; Brydges, Ryan; Ringsted, Charlotte

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Lotte O'Neill, MMedEd, PhD. Center for Medical Education, Aarhus University, Denmark.
<b>REVIEW RETURNED</b>	16-Apr-2014

<b>GENERAL COMMENTS</b>	<p>Re. 4) Comments to the search:</p> <ul style="list-style-type: none"><li>- You mention a series of "related domains" to be searched too (lines 168-171). Is this a comprehensive list? How did you define/derive at this particular list of 'related domains' and not another list of other domains?</li><li>- Lines 172-173: "The search is supplemented by adding the reference lists of recent reviews in simulation-based medical education and with the authors' records of studies published in the period of interest." Questions: Is this use of 'author records' a matter of convenience (cf. the overlap of one author in this study with reference 15 in the reference list)? Do you not risk making your search non-systematic and not reproducible? Could this strategy introduce bias by an overrepresentation of research from a particular subdomain in medical education thereby becoming less representative of the overall field?</li><li>-Are you not doing ancestry (reference) and descendency (cited reference) searches, and if no, why not?</li><li>-Have you considered searching Google too?</li></ul> <p>Comments to the study selection:</p> <ul style="list-style-type: none"><li>-line 182: what if consensus cannot be reached? Have you considered in advance appointment of one researcher in the group as the 'mediator', who will decide on matters if consensus cannot be reached?</li></ul> <p>Re. 6):</p> <ul style="list-style-type: none"><li>- Regarding the MEdEx "developed by the study group through a literature review of relevant quality research in medical education": What literature review? Or based on which studies? One/more references to the studies informing MEdEx would be appropriate here.</li><li>- Five of the 6 proposed domains (1, and 3-6) in MEdEx are exactly the same as described for the CONSORT. I do not think is particularly clear at this point, precisely how MEdEx differs from CONSORT.</li><li>-Perhaps both CONSORT, MERSQI and MEdEx could be appended as appendices to this protocol?</li></ul>
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	<p>- Scoring of MERSQI and MEdEx is not described at all.</p> <p>Other:</p> <p>- is there a sentence missing in line 248, line 247 end with a comma?</p> <p>- You intend to submit the review in a general medical journal (line 258-9), but your intention with this study is to inform the medical education community (line 263-4)? Would it not be fair to say, that you want to inform both the medical and the medical education community (cf. the critics of the quality of research in medical education: references 4 &amp; 6)?</p> <p>Re. 8)</p> <p>There is a missing reference in line 116.</p> <p>I think this makes for an interesting and important study, and I look forward to seeing some results. I wish the authors the best of luck with this piece of research.</p>
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<b>REVIEWER</b>	<p>Ben Styles  Head of NFER Education Trials Unit  National Foundation for Educational Research  The Mere  Upton Park</p>
<b>REVIEW RETURNED</b>	29-Jun-2014

<b>GENERAL COMMENTS</b>	<p>This protocol may benefit from a little more detail within the 'statistical analysis' section. For example, is it possible that regression of each outcome on journal type, in addition to other factors that characterise each study, may be necessary?</p> <p>There are two lines of text that need minor revision: line 107 'problem becomes' may mean 'problem becomes reality' and lines 122-126 need breaking into shorter sentences.</p> <p>Authors may be interested in CONSORT-SPI; an extension of CONSORT for social and psychological interventions. It will cover education trials and is due to be published in summer 2014:  <a href="http://www.spi.ox.ac.uk/research/site/consort-spi/home.html">http://www.spi.ox.ac.uk/research/site/consort-spi/home.html</a></p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer Name Lotte O'Neill, MMedEd, PhD.

Institution and Country Center for Medical Education, Aarhus University, Denmark.

Please state any competing interests or state 'None declared': None.

Comments to the search:

- You mention a series of "related domains" to be searched too (lines 168-171). Is this a comprehensive list? How did you define/derive at this particular list of 'related domains' and not another list of other domains?

Authors: An information specialist (expert librarian) helped design and revise the search strategy for us. The list of domains was informed by previous reviews and suggestions from within the team to make the search as sensitive as possible. The final search strategy has been attached as an appendix to the re-submitted manuscript.

- Lines 172-173: "The search is supplemented by adding the reference lists of recent reviews in

simulation-based medical education and with the authors' records of studies published in the period of interest." Questions: Is this use of 'author records' a matter of convenience (cf. the overlap of one author in this study with reference 15 in the reference list)? Do you not risk making your search non-systematic and not reproducible? Could this strategy introduce bias by an overrepresentation of research from a particular subdomain in medical education thereby becoming less representative of the overall field?

Authors: We agree that this may lead to overrepresentation of certain articles from a particular subdomain. Instead we used our own references for checking the sensitivity of the final search to make sure that it included all relevant papers.

-Are you not doing ancestry (reference) and descendency (cited reference) searches, and if no, why not?

-Have you considered searching Google too?

Authors: We are only interested in medical education RCTs published within a certain period and did not track references of the included papers. The search strategy was designed by our information specialist to balance sensitivity and volume of the search. Google was therefore not included in the search, as this may only have led to an increase in number of papers that needed to be screened without increasing the sensitivity of the search.

Comments to the study selection:

-line 182: what if consensus cannot be reached? Have you considered in advance appointment of one researcher in the group as the 'mediator', who will decide on matters if consensus cannot be reached?

Authors: If consensus cannot be reached by two of the co-authors, the whole author team will decide whether to include the paper or not. This has now been added to the protocol.

- Regarding the MEdEx "developed by the study group through a literature review of relevant quality research in medical education": What literature review? Or based on which studies? One/more references to the studies informing MEdEx would be appropriate here.

Authors: The MEdEx framework was developed through a review of relevant literature on what constitutes quality in medical education research. We have added the relevant references to each of the MEdEx items in the study protocol.

- Five of the 6 proposed domains (1, and 3-6) in MEdEx are exactly the same as described for the CONSORT. I do not think is particularly clear at this point, precisely how MEdEx differs from CONSORT.

-Perhaps both CONSORT, MERSQI and MEdEx could be appended as appendices to this protocol?

- Scoring of MERSQI and MEdEx is not described at all.

Authors: We have now added the MEdEx as an appendix to the protocol. Although the overall domains may overlap the CONSORT framework, the items being addressed are quite different. We intended the MEdEx as an extension to the CONSORT framework that would further specify reporting recommendations that are specific for medical education research. The scoring system is described in the appendix heading.

Other:

- is there a sentence missing in line 248, line 247 end with a comma?

Authors: Thank you for pointing this out. We have now corrected this type error.

- You intend to submit the review in a general medical journal (line 258-9), but your intention with this study is to inform the medical education community (line 263-4)? Would it not be fair to say, that you want to inform both the medical and the medical education community (cf. the critics of the quality of research in medical education: references 4 & 6)?

Authors: We have now clarified this in l. 268.

There is a missing reference in line 116.

Authors: This has now been added.

I think this makes for an interesting and important study, and I look forward to seeing some results. I wish the authors the best of luck with this piece of research.

Reviewer Name Ben Styles

Institution and Country Head of NFER Education Trials Unit

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Please state any competing interests or state 'None declared': None declared

Authors: This has now been added (l.34).

This protocol may benefit from a little more detail within the 'statistical analysis' section. For example, is it possible that regression of each outcome on journal type, in addition to other factors that characterise each study, may be necessary?

Authors: Thank you for this suggestion. We agree on this and we have now elaborated the statistical analyses to include the description of the logistic and multiple regression models that we intend to use.

There are two lines of text that need minor revision: line 107 'problem becomes' may mean 'problem becomes reality' and lines 122-126 need breaking into shorter sentences.

Authors: Thank you for pointing this out. We have now clarified the language in the two sentences.

Authors may be interested in CONSORT-SPI; an extension of CONSORT for social and psychological interventions. It will cover education trials and is due to be published in summer 2014:

<http://www.spi.ox.ac.uk/research/site/consort-spi/home.html>

Authors: Thank you for suggesting this. We are looking forward to the release of this new framework and we will probably use it as a reference in the discussion of our review results.

Appendix containing communications with the Prospero office:

Date February 27 2013

Topic: Registration message [8753]

Dear Dr Tolsgaard

Thank you for submitting details of your systematic review Quality of randomised controlled trials in medical education reported between 2012 and 2013: a systematic review protocol to the PROSPERO register.

We regret that the information you have provided fails to meet the requirements for inclusion as the review appears to be purely methodological in nature.

Information about the level of detail for each required field in the register are given in the Guidance notes, which can be found in the About pages at <http://www.crd.york.ac.uk/PROSPERO>.

We hope that this will not discourage you from registering your next systematic review at the protocol stage, with PROSPERO.

Yours sincerely

James Christie

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