Author’s response to reviews

Title: Psychosocial and career outcomes of peer mentorship in medical resident education: A systematic review protocol

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Author’s response to reviews:

Eva Annette Rehfuess
Editor
Systematic Reviews

June 21 2017

Re: SYSR-D-17-00054

Dear Dr. Rehfuess,

Thank you for your and the reviewers suggestions concerning our manuscript entitled “Psychosocial and career outcomes of peer mentorship in medical resident education: A
systematic review protocol" (SYSR_D_17-00054). All editor and reviewer comments have been addressed (see below) and the manuscript revised accordingly. Manuscript changes have been highlighted in yellow in the text.

We hope you find these revisions acceptable and look forward to your response.

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EDITOR COMMENTS

Logic model: I would suggest that you include a logic model with your review, which provides a graphical display of known as well as assumed relationships between peer mentorship and various outcomes.

AUTHORS:

Agreed. We included a provisional logic model in our manuscript (Figure 1 page 9) which reflects our assumptions regarding the relationship between peer mentorship and relevant outcomes in the context of medical residency education. These assumptions were informed by our knowledge of the theoretical and practice-based literature on peer mentorship. This knowledge guided the development of our research question and inclusion/exclusion criteria.
EDITOR COMMENTS

Participants: How are you going to deal with studies that include mixed participants, i.e. where some meet your eligibility criteria and others don’t?

AUTHORS:

We have added the following sentence (page 9 line 206-7): “We will only include those studies where medical resident data are reported separately from that of other participants”.

EDITOR COMMENTS

Participants: Is your review concerned with all countries (high-income as well as low-income)? If not, which countries are you focusing on? This will have significant implications for the way in which you conduct your searches.

AUTHORS:

As we noted on page 11 line 232 of our original manuscript (page 10 line 227 rev manuscript), we will not exclude any studies based on geographic location. Our search strategy will remain intentionally broad so as to capture relevant studies irrespective of country.

EDITOR COMMENTS

Outcomes: Please be as specific as possible – the items listed under 2 are not outcomes.

AUTHORS:

Agreed. We have removed “describe and evaluate programs to support the development of peer mentoring or peer support relationships” from our Outcomes section and expanded our discussion of the outcomes we hope to identify and report on in this review (page 10 line 215-24) and data extraction Table 2.
EDITOR COMMENTS

Information sources and search strategy: Which citation software are you going to use?

AUTHORS:

We will be using Endnote™ v8 and have added this information to the manuscript (page 11 line 238)

EDITOR COMMENTS

Information sources and search strategy: Please make sure that you involve a search specialist with your searches – the current set of terms looks a little thin.

AUTHORS:

The corresponding author is a medical research librarian. Our preliminary search strategy was created in consultation with this librarian and team members with expertise in mentorship and medical residency education. We have amended the following sentence in our manuscript (page 11 line 232-4) to read “The search strategy, developed in consultation with a research librarian, will be updated within 90 days of final publication of this review.” In response to Reviewer #2’s suggestion, we have also added (Table 1) the terms “house officer” and “registrar” as additional synonyms relevant to the “medical residents” concept.

EDITOR COMMENTS

Data extraction: It is not clear how you are going to treat your broad range of study designs under data extraction and evidence synthesis, will quantitative and qualitative studies be analysed separately? I believe they should.

AUTHORS:

Quantitative and qualitative studies will be extracted separately. As outlined in our manuscript, we will also separately assess and report on the quality of these studies using assessment tools specific to the study designs identified in our review. We have amended our manuscript (page 13 line 281-84) accordingly.
EDITOR COMMENTS

Data extraction: “minimizing risk of bias” is not the right terminology for qualitative studies!

AUTHORS:

Agreed. The phrase “Minimizing risk of bias” has been deleted, as have other inappropriate uses of the term “bias” in this manuscript.

EDITOR COMMENTS

Synthesis: There may well be more informative ways of synthesizing your data than a narrative synthesis, e.g. through tables or framework synthesis.

AUTHORS:

Agreed. We had always intended to present our findings in tables as well as through narrative synthesis. Narrative synthesis is a recognized approach for incorporating qualitative and quantitative literature in a systematic review. We will apply a “convergent synthesis” approach to integrating findings from relevant qualitative and quantitative studies into qualitative themes as outlined by Pluye and Hong 2014 (Pluye P, Hong QN. Combining the power of stories and the power of numbers: mixed methods research and mixed studies reviews. Annu Rev Public Health. 2014;35:29-45.) In this approach both quantitative and qualitative data are transformed into themes. We have added/amended the following sentences (page 13 line 281-4) in our manuscript: “Rather, findings from qualitative and quantitative studies will be transformed into convergent themes and presented in a narrative synthesis [45]. These findings will also be reported visually, in a series of tables and figures.”

EDITOR COMMENTS

Synthesis: How are you going to deal with your different groups of studies?
AUTHORS:

We have included the following sentence (page 14 line 300-2) in our manuscript: “Provided that sufficient data exists, we will consider conducting subgroup analyses by study design, country, elements of program design, participant specialization, and/or year of training.”

REVIEWER 1

Working in a country having mentorship aspects in postgraduate training rather at the starting point (and if existent rather understood as a hierarchical mentor roll model), I very much enjoyed reading your protocol. From my point of view there is nothing to add to your manuscript.

AUTHORS

Thank you for you feedback and positive review

REVIEWER 2

The topic of this review is to my opinion extremely important, because junior doctors need more assistance and help, but what help exactly needs to be scientifically examined. This is described nicely in the Background section. The manuscript shows that the authors did successfully put a lot of effort in designing the study protocol. It is written in excellent English.

AUTHORS:

Thank you for your feedback. We agree that this is an extremely important topic.

REVIEWER 2

In Pubmed there are some recent reviews listed (Wilson 2017, Sng 2017). Please explain if the topic of your review is already discussed there? Or does your systematic review provide new information?
AUTHORS:

Thank you for identifying these recent reviews. We feel that the topic of our review is distinct from Wilson et al.’s (2017) and Sng et al.’s (2017). In Sng 2017, the authors have explored mentoring relationships between “a senior more experienced clinician and a resident, a junior physician and/or a medical student” whereas our review focuses on reciprocal mentoring relationships between residents (peer mentoring). Although the Wilson 2017 paper reports on both hierarchical and peer mentorship in both medical residency and post-residency, the authors did not search for studies on peer support specifically, or report findings for medical residents separately. We feel that the mentoring and peer support needs of medical residents are likely sufficiently unique from those of established physicians to warrant a separate review. We have added the following sentence (page 8 lines 176-9) to our manuscript clarify that our review offers new information. “While prior reviews have addressed mentoring among physicians, junior doctors, and medical students, to date, there has been no explicit systematic review of peer mentoring among medical residents” We have explicitly cited studies identified by the reviewer.

REVIEWER 2

It would help me if you could discuss an example (review) of another profession where peer mentoring is successful/not successful and why this can be compared with junior doctors? Is peer mentoring more common in other professions? Is it implemented later in the medical field? Or is data lacking in other professions as well?

AUTHORS:

Agreed. We have expanded upon this important point in our manuscript (page 7 line 157-63) elaborating on our discussion of peer mentoring in comparable professions, such as nursing, education, and health care professions.

REVIEWER 2

An interesting question which maybe can be answered with this review: Is there data on influences of peer mentorship on the career perspective of resident doctors? You included burnout as one possible outcome, which can be influenced by peer mentorship. And burnout can cause, that the resident doctor is unable to continue working, or that they start working in a different field (e.g. pharmaceutical companies or other jobs). And this has an economic impact as well. Would you look for these results too?
AUTHORS:

Agreed. While we had always intended to capture data on career outcomes, it was not adequately stated in our original submission. We have expanded our discussion of the outcomes we hope to identify in this review in our text (page 10 line 215-24) and data extraction Table 2.

REVIEWER 2

In table 1 is the search strategy described. I think it is quite complete. But thinking of the education system for junior doctors in the United Kingdom, they used to be called in their first year 'junior house officer', than 'senior house officer', followed by 'registrar'. Afterwards they have finished their training and are specialists. The training systems for doctors worldwide are quite different, but the UK is an example for other countries, who adapted this system, so I would think about including these terms as well

AUTHORS:

Thank you for your comment. We have added these search terms to our search strategy and Table 1 of this manuscript.

REVIEWER 2

Please describe exactly how you define medical resident, because due to the different worldwide education systems, you need exact definitions, which were not absolutely clear to me after reading this manuscript.

AUTHORS:

We have added a sentence (page 9 line 202-4) clarifying our definition of medical residents as follows: “While terminology varies globally, for the purposes of this review, we define a medical resident as a medical doctor currently involved in post-graduate training under the supervision of an attending or senior physician.”