PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Supervision training interventions in the health and human services: a realist synthesis protocol
AUTHORS	Lee, Sarah; Denniston, Charlotte; Edouard, Vicki; Palermo, Claire; Pope, Kirsty; Sutton, Keith; Waller, Susan; Ward, Bernadette; Rees, Charlotte

VERSION 1 – REVIEW

REVIEWER	Geoff Wong University of Oxford, United Kingdom.
REVIEW RETURNED	16-Aug-2018

GENERAL COMMENTS	Thank you very much for asking me to review this manuscript. The authors make a justifiable argument for the need for this review. In reviewing this manuscript I have mainly restricted my comments to methodology. Whilst I do practise as a supervisor of medical trainees and graduate students, I cannot pretend to be an expert on the literature in this field. I would however agree with the authors the importance of understanding how we can help help supervisors to be better. Overall I found the methodology of the realist review described in this manuscript to be of adequate to good quality. The comments I have made below all fall into the 'minor' category and are mainly focused on gaining clarity as to the review processes and justifications of the use of such processes. Please note I have used
	the page numbers as in the bottom right hand corner of the manuscript to refer to pages. Page 4 line 18: As you are planning to do a realist review, I would suggest you only use the word "mechanism" when you are using it in the realist sense - i.e. as a hidden, causal force for outcomes. In this case "process" is a suitable substitute. Page 5 line 22:
	As for mechanism, context too has a specific meaning in realist research. So it may be advisable to reserve its use to when you are referring to context in the realist sense of the word. In this situation, "setting" may be a suitable substitute. This would be applicable to all situations within your manuscript where context is not used in the realist sense of the word. Page 10: Clarifying scope section

Please would you provide a bit more detail for (b) and (c). For example, how will you refine the purpose of the synthesis? Who will do it and with whom?

Also, when you are conducting your "scoping exercise", please would you provide detail on the processes you will use to do so. Who will do this? With whom? How? And so on.

For (c) in this section are you planning to develop an initial programme theory for supervisor training? If so, please explain how.

Page 10 line 5:

I thought you already had review questions (lines 23 to 28 page 9). So why do you need to identify the synthesis question?

Search strategy section (page 10).

Please would you provide a bit more detail here as well.

Who is developing the searches? Will they be piloted and refined? Who will then undertake them? And so on.

You may wish to peruse other realist review protocols which have been published in BMJ Open to understand the level of detail required (though I accept in some cases, there is an absence of detail).

Will you be undertaking additional searches if more relevant data are needed to confirm, refute or refine aspects of your initial programme theory?

Table 1 page 10.

Please would you provide an explanation of how the search terms in this table will be combined during your searches. Which Boolean operator will be used with which terms (or groups of terms)? Will you be using any truncations and/or other processes (e.g. such as the us of the adj term)?

Please also explain what the * means.

Also please clarify if you will be using a combination of controlled and free text terms and if the searches will be adapted for different databases?

Study selection section:

In particular inclusion criterion 5.

With this inclusion criterion you run the risk of of excluding important documents, such as books, training manuals or policy documents - all of which may contain relevant data for programme theory development.

Page 11 lines 39 to 48.

Usually in realist reviews, checking for rigour does not use rating scales.

You may wish to consider the approach you will be using to make judgment about rigour after you have read the reference below: Data gathering for realist reviews: Looking for needles in haystacks. Wong G. In: Emmel N, Greenhalgh J, Manzano A, Monaghan M, Dalkin S, editors. Doing Realist Research. London: Sage, 2018.*

*Please note, I receive no financial payments of any sort for the sale of this book.

Page 13 lines 11 to 16.

Sorry to be pedantic, but it my may better to replace "identifying" with

"identifying sections of texts that may be interpreted as functioning as context, ..."

It's just that you have to work out what is functioning as a C, M or O

It's just that you have to work out what is functioning as a C, M or O and in which CMO configuration, rather than sections of texts within included documents just 'leaping' out at you and begging to be identified as function as C, M or O.

We have used a series of structured questions to help in the data extraction and analysis stage, See (for example): https://www.crd.york.ac.uk/prospero/display_record.php?RecordID =96518

Synthesis findings.

I would suggest that a thematic analysis is not the correct approach to use.

What you want to do is to interpret the data do that you them to help you make inferences about CMO configurations.

You may wish to look at the at the analysis section of the following PROPSERO registration (as above) to get an idea of how data analysis might be approached.

Another protocol you may wish to look at:

https://www.crd.york.ac.uk/prospero/display_record.php?RecordID =98549

I hope these comments are of help.

I look forward to reviewing any revisions made.

I would appreciate it if any changes made are provided in tracked changes so it easier to follow what has been changed. Thanks.

REVIEWER	Rose Hatala
	University of British Columbia, Canada
REVIEW RETURNED	18-Oct-2018

GENERAL COMMENTS	Thank you for the opportunity to review this realist synthesis protocol. The paper is well-written. The methods are described in thoughtful detail and, based on this description, the realist synthesis seems set-up to succeed in answering the questions being asked. The only concern I would raise for the authors is to consider whether the scope of the research is overly ambitious. I recognize that in order to study the influence of context on supervisory training approaches, a variety of contexts need to be included in the analysis. However, there is a balance between including so many contexts that meaningful relationships become difficult to discern vs. including too few contexts to uncover relationships. My concern for this study is that the breadth of contexts is so wide (all of human and health services supervision training) that the variability has the potential to overwhelm the analyses and the authors may wish to consider potentially limiting the scope of contexts.
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REVIEWER	Kim Manley
	England Centre for Practice Development, Canterbury Christ
	Church University, England, UK
REVIEW RETURNED	13-Nov-2018

GENERAL COMMENTS	This will be a valuable review that identifies a theoretical
	perspective prior to undertaking the review - I,e. Proctor's mode

but proposal could be further strengthened by considering the following:

- 1. Include as one of your review questions, the outcomes, whilst recognising you are using Proctors model, which suggests what the outcomes are through the three purposes, there may be other outcomes, or more specific outcomes that emerge from the review.
- 2. Be more aware of the assumptions underpinning educational concepts such as competence there are three different models of competence with different spellings
- and 'training' n terms of educational philosophy
- 3. The literature reviewed will probably not identify specific relationships between CMOs specifically, so you may need to be very tentative with the CMOs arising
- from the review that can then be subsequently refined through further research
- 4. The search terms need to include facilitator, critical companion and possible coach Unless you can discount philosophically)- the first 2 in particular have taken over the use of supervisor in many circumstances that reflect a more integrative purpose to include development, improvement and learning
- 5. The training terms need to embrace workplace learning, work based learning, critical companionship and possible also action learning

VERSION 1 – AUTHOR RESPONSE

Reviewer 1		
	Page 4 line 18: As you are planning to do a realist review, I would suggest you only use the word "mechanism" when you are using it in the realist sense - i.e. as a hidden, causal force for outcomes. In this case "process" is a suitable substitute.	We have reviewed the manuscript and substituted the word "mechanism/s" where it is not used in a realist sense to words such as "process/es" and "method/s" (for example, see page 4).
	Page 5 line 22: As for mechanism, context too has a specific meaning in realist research. So it may be advisable to reserve its use to when you are referring to context in the realist sense of the word. In this situation, "setting" may be a suitable substitute. This would be applicable to all situations within your manuscript where context is not used in the realist sense of the word.	We have reviewed the use of the word "context" and revised where context is not being used in the realist sense of the word to words such as "setting/s" (for example, see page 8).
	Page 10: Clarifying scope section Please would you provide a bit more detail for (b) and (c). For example, how will you refine the purpose of the synthesis? Who will do it and with whom? Also, when you are conducting your "scoping exercise", please would you provide detail on the processes you will use to do so. Who will do this? With whom? How? And so on. For (c) in this section are you planning to develop an initial programme theory for supervisor training? If so, please explain how	Thanks for these suggestions from reviewer 1. We have clarified the scope section of our revised paper providing more detail for (b) and (c) (which are now a, and b in the revised paper). For example, in terms of (b, now a in the revised manuscript), we now provide further details of how we will refine the purpose, how the scoping exercise will be done and by whom (see page 10 of the revised manuscript). We would like to explain further here that: The scoping exercise (which is now already completed) was conducted by the lead author with support from the larger team (co-authors), plus a medical librarian (see acknowledgements). The scoping exercise included creating a matrix, which identified existing primary literature, literature reviews, key words and search terms. The lead author liaised with experts in the field to identify synonyms of the key terms used in supervision training literature and across the different disciplines within the health and human services. The lead author worked closely with the librarian to run searches through several databases to test searches, Boolean operators, and proximity searching. The scoping review and test searches were conducted from January-April 2018, with the final search for all databases being run on 08/05/18.
		With respect to c), now b) in the revised manuscript:

	The initial programme theories are to be developed from the synthesis; they will be developed through a process of extracting data on contexts, mechanisms and outcomes from each of the papers included in the final synthesis. This extracted data will be interpreted to identify outcomes, the mechanisms generating these outcomes, and the contexts in which these mechanisms are triggered. Although this process will not be linear or sequential, it will result in a number of context-mechanism-outcome configurations/initial programme theories which will subsequently be tested and modified through a realist evaluation planned to follow on from this synthesis (see page 15 in the revised manuscript). We make it clearer in our revised paper that while the scoping might start to identify initial programme theories, these will be developed through later stages of our synthesis (see page 10 of the revised paper).
Page 10 line 5: I thought you already had review questions (lines 23 to 28 page 9). So why do you need to identify the synthesis question?	Thanks to the reviewer for flagging this issue. The reviewer is quite correct, we do indeed have review questions, so do not need to identify the synthesis question. This statement has therefore been deleted from the revised paper (see page 10). As above, b) then becomes a) and c) then becomes b) in the scoping section of the revised paper.
Search strategy section (page 10). Please would you provide a bit more detail here as well. Who is developing the searches? Will they be piloted and refined? Who will then undertake them? And so on. You may wish to peruse other realist review protocols which have been published in BMJ Open to understand the level of detail required (though I accept in some cases, there is an absence of detail).	Thank you for the feedback and as suggested by reviewer 1, we have now reviewed other realist review protocols (see below) and have added some extra detail so that our protocol is more in line with others, for example: https://bmjopen.bmj.com/content/4/6/e005466 https://bmjopen.bmj.com/content/8/2/e021273 https://bmjopen.bmj.com/content/6/4/e011145 Please see pages 10-12 in the revised manuscript for this additional detail on the search strategy.
Will you be undertaking additional searches if more relevant data are needed to confirm, refute or refine aspects of your initial programme theory?	As indicated above, we plan to develop the initial programme theory/ies from the synthesis, which will subsequently be tested and modified through a realist evaluation planned to follow on from this synthesis. We have added words to this effect in our revised paper to clarify this for the reader (see page 15 of the revised protocol).

Table 1 page 10.

Please would you provide an explanation of how the search terms in this table will be combined during your searches. Which Boolean operator will be used with which terms (or groups of terms)?

Will you be using any truncations and/or other processes (e.g. such as the use of the adj term)?

Please also explain what the * means. Also please clarify if you will be using a combination of controlled and free text terms and if the searches will be adapted for different databases? Many thanks to the reviewer for these helpful suggestions to add extra detail to the paper. We have now addressed these questions in the revised paper by adding extra detail using the example of a MEDLINE search strategy that was used (please see this example added as Box 1 to pages 11/12 of the revised paper):

(supervisor* OR mentors OR mentor OR mentoring OR instructor* OR placement educator* OR practice educator* OR trainer* OR preceptor OR preceptors OR clinical teacher* OR clinical educator* or fieldwork educator*) ADJ3 (training OR education OR educating OR workshop*)

OR

Supervision ADJ (training OR education OR educating OR workshop*)

OR

"train the trainer*"

OR

(professional development OR faculty development OR personal development OR CPD) ADJ3 (supervisor* OR mentors OR mentor OR mentoring OR instructor* OR placement educator* OR practice educator* OR trainer* OR preceptor OR preceptors OR clinical teacher* OR clinical educator* OR fieldwork educator*)

You will see from this illustrative Medline search that we use OR, plus we use adj.

The asterisk is used to search for both plural and non-plural, for example trainer* would search for both trainer and trainers. We now explain this in our revised paper (see page 11).

Searches will be adapted for each of the databases used to account for the different functions of each database, and we now provide words to this effect in the revised paper (see page 11 of the revised manuscript).

We only used free text terms (keywords) for the search. This was because there were no Medical Subject Headings (MeSH) that related specifically to supervision training. There is a MeSH for the broader term supervision, but when we tried to combine the MeSH for supervision AND training it resulted in a large number of irrelevant hits. Therefore, controlled vocabulary (or subject headings) were not effective for this search.

As an aside, we found the best solution to increasing the relevance of the results was to use proximity operators with free text terms (and then to test the results to ensure the coverage). The terms in the subject heading field were automatically searched as part of the keyword search.

Study selection section:
In particular inclusion criterion 5.
With this inclusion criterion you run the risk of excluding important documents, such as books, training manuals or policy documents - all of which may contain relevant data for programme theory development.

Thank you for raising this important point. We made the strategic decision to only include peer-reviewed materials (as well as including quality checks) and not grey literature or other documents because the literature in this field is huge. Our initial search after duplicates were removed brought back 11,766 articles, and after records were screened against inclusion/exclusion criteria we had 80 for full text screening. This has been noted in our revised 'study selection' section (see page 12). We acknowledge that by having these inclusion criteria we may miss potentially important other documents that might help with the development of initial programme theory/theories, so this has now been added as a limitation of the synthesis (see page 15). We would also like to point out that while we are excluding grey literature from our sample of papers to undergo extraction and synthesis, we plan to draw on grey literature and other documents as part of (a) our framing of our realist synthesis write-up such as the introduction and discussion sections of the final paper; and (b) in our subsequent realist evaluation which will help us to test and modify our initial programme theories. We have added a note to this effect in our revised paper (see page 12).

Page 11 lines 39 to 48.

Usually in realist reviews, checking for rigour does not use rating scales. You may wish to consider the approach you will be using to make judgment about rigour after you have read the reference below:

Data gathering for realist reviews: Looking for needles in haystacks. Wong G. In: Emmel N, Greenhalgh J, Manzano A,

Thank you for your feedback, and for your reference suggestion, which we have read. We determined to employ such quality scales as a way to assist us in reducing our large sample of papers to a reasonable amount to be synthesised (as indicated above). However, we nevertheless prioritised both the relevance (and realist relevance) of our papers rather than their rigour as identified by quality checklists. Note that other published medical education realist reviews (e.g. Ajjawi et al. 2018,

Monaghan M, Dalkin S, editors. Doing Realist Research. London: Sage, 2018.* *Please note, I receive no financial payments of any sort for the sale of this book.	Kent et al. 2017, Sholl et al. 2017) have used rigour to tighten up the review process, while prioritising relevance in terms of papers contributing to theory building or testing. We recognise that some realist scholars would not recommend the use of quality checklists, so we have added words to this effect in our limitations section in the discussion (see page 15 of the revised manuscript). We now also cite this Wong et al. (2018) reference in our revised paper.
Page 13 lines 11 to 16. Sorry to be pedantic, but it my may better to replace "identifying" with "identifying sections of texts that may be interpreted as functioning as context," It's just that you have to work out what is functioning as a C, M or O and in which CMO configuration, rather than sections of texts within included documents just 'leaping' out at you and begging to be identified as function as C, M or O.	Thanks to the reviewer for this suggestion. We have revised the text with the suggested wording (see page 14 of the revised manuscript).
We have used a series of structured questions to help in the data extraction and analysis stage, See (for example): https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=96518	Many thanks to Reviewer 1 for the suggestion to use structured questions to help in the data extraction stage. We have read the suggested protocol and have added in the revised manuscript that we will use structured questions during this stage and cited their suggested questions and referenced the suggested protocol (See page 14 of the revised protocol).
Synthesis findings. I would suggest that a thematic analysis is not the correct approach to use. What you want to do is to interpret the data do that you them to help you make inferences about CMO configurations. You may wish to look at the at the analysis section of the following PROPSERO registration (as above) to get an idea of how data analysis might be approached. Another protocol you may wish to look at:	Many thanks for your suggestions here. For members of the team who have conducted realist syntheses before, we see the identification of CMOCs as a similar interpretive process to qualitative thematic analysis, which is why we employed this terminology in our original protocol. However, we agree that our use of the term 'thematic analysis' has erroneous connotations (e.g. a philosophy underpinned by social constructionism rather than critical/scientific realism). We have reviewed other realist synthesis protocols as suggested by reviewer 1 and have removed all terminology pertaining to 'thematic analyses' in our revised paper, replacing this with more appropriate

	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=98549	terms such as 'use realist logic analysis to interpret the data to make inferences about CMO configurations' (see page 15 for an example of revised terminology). Note that we have also added the suggested citation to the paper (see pages 13 and 16 of the revised protocol).
Reviewer 2	Thank you for the opportunity to review this realist synthesis protocol. The paper is well-written. The methods are described in thoughtful detail and, based on this description, the realist synthesis seems set-up to succeed in answering the questions being asked.	Thanks to the reviewer for her positive comments regarding the clarity of our protocol.
Povince 2	The only concern I would raise for the authors is to consider whether the scope of the research is overly ambitious. I recognize that in order to study the influence of context on supervisory training approaches, a variety of contexts need to be included in the analysis. However, there is a balance between including so many contexts that meaningful relationships become difficult to discern vs. including too few contexts to uncover relationships. My concern for this study is that the breadth of contexts is so wide (all of human and health services supervision training) that the variability has the potential to overwhelm the analyses and the authors may wish to consider potentially limiting the scope of contexts.	Thanks to the reviewer for sharing her concerns with us: We do appreciate these anxieties about the scope of the research but wish to allay these concerns in our response here. Firstly, we should say that this synthesis was funded by the Victorian Department of Health & Human Services in Australia (see acknowledgements), which firstly explains the mandated broad scope of the review and our inclusion of both health and human services contexts (we now make this clearer in our revised manuscript, see page 5). Furthermore, given this funding from the DHHS, our own supervision training program that will be subsequently evaluated (through realist evaluation), also includes health and human services workers. Therefore, we wanted our realist synthesis to have the same scope as our realist evaluation. Finally, we are currently in the last stages of our review and while we initially identified over 11,000 papers (a huge sample), through our systematic process of relevance and rigour checks, our large project team was able to reduce this sample to a manageable size of less than 40 papers for extraction and synthesis. Note that Jagosh (Realist workshop, February 2018) reported that an optimal sample size for a realist synthesis is around 30 papers, so we are not too far off that mark for our realist synthesis. While we have not made any amendments to our protocol in response to these comments from reviewer 2, we do flag the size/scope issue in our limitations section of the paper (see page 15 of our revised paper).
Reviewer 3	Include as one of your review questions, the outcomes, whilst recognising you are using Proctor's model, which suggests what the	Thanks to reviewer 3 for their comments. We would like to clarify that we will be exploring <u>any</u> outcomes in this review, both positive and negative outcomes of supervision training at individual, interpersonal

outcomes are through the three purposes, there may be other outcomes, or more specific outcomes that emerge from the review. and organisation levels. We have clarified this in our revised paper by adding words to this effect (see page 5 of the revised manuscript). We would like to clarify that our review is therefore not constrained to the outcomes of Proctor's model of supervision; indeed, this model has simply been used to guide our understanding and definition of supervision in the health and human services. We have added words to this effect in our revised manuscript to clarify this (see page 4 in the revised manuscript).

2. Be more aware of the assumptions underpinning educational concepts such as competence - there are three different models of competence with different spellings and 'training' in terms of educational philosophy

We have reviewed our use of the word 'competence' in the manuscript and have changed it where appropriate to terms such as 'ability' and 'skills', so that our use of the word 'competence' is now consistent across the paper. For example, see Page 5 of the revised manuscript for an example of where 'competence' has been changed to 'capability' and 'ability'. Also, see pages 6-7, where 'competence' has been changed to terms such as 'knowledge', 'aptitude' and 'skills'. Note that we have checked our spelling of this word and now ensure that we are consistent across the paper.

Furthermore, we totally understand the reviewer's concerns about the different educational philosophies underpinning the terms 'education' versus 'training' (e.g. Gibbs 2004). However, we employ the word 'training' in the current study because the literature typically talks about 'supervision training' rather than 'supervision education'. We would like to assure the reviewer that we have employed 'education', 'educating' and 'educator' as search terms in our searches (see our new Box 1 in the revised paper on pages 11/12). While we are sympathetic with the reviewer's concerns about our employment of the word 'training' we have maintained our use of the word 'training' as other medical education scholars have done (e.g. Gibbs et al. 2004) and not changed this terminology in the paper for these outlined reasons.

Gibbs T (2004) The education versus training and skills versus competency debate. SA Fam Pract 46(10), 5-6.

3. The literature reviewed will probably not identify specific relationships between CMOs specifically, so you may need to be very tentative with the CMOs arising from

We politely disagree with the reviewer that our review will probably <u>not</u> identify CMO configurations. We have already started our extraction stage of our realist synthesis and are easily identifying contexts.

the review that can then be subsequently refined through further research.

mechanisms and outcomes, as well as partial and full CMO configurations in the papers within our final sample. For example, in Cox et al. (2017) we found that online videos (intervention) to train pharmacy preceptors (context) enabled the preceptors to successfully complete the training (positive outcomes) because of the flexibility and convenience of blended learning (mechanism). In Eckstrom et al. (2006), we found that preceptors (context) continued their use of preceptor skills (positive outcomes) from the faculty development workshop (intervention) through enhanced self-efficacy (mechanism).

While we have not completed our extraction process, we are confident from the papers we have so far analysed that we will identify plenty of CMOCs that will help us develop our initial programme theories.

4. The search terms need to include facilitator, critical companion and possible coach unless you can discount philosophically - the first 2 in particular have taken over the use of supervisor in many circumstances that reflect a more integrative purpose to include development, improvement and learning.

The search terms used were specific to the supervision training of those in the health and human services. The authors consulted with an expert panel in supervision across a range of disciplines around the terms that are used for 'supervisor' across different fields. For example, in the field of OT the term 'field educator' is used instead of supervisor, while in the field of nursing the term 'preceptor' is typically employed. These terms were included in the search strategy.

We thank reviewer 3 for these additional suggestions. We did actually test the term 'coach' in the pilot searches but we found it to be used heavily in a sports context and not specifically related to supervision training in the health and human services. Indeed, the term 'coach' was not used in any key literature in supervision training nor in the organisations we are reviewing for this study. So it was decided that this term would not be used as it did not add any papers which would assist in developing our initial programme theory.

In terms of the word 'facilitator', while we agree with reviewer 3 that supervisors can enact 'facilitation' in the sense that they can help supervisees to make something happen or make something easier for the supervisees (see

https://dictionary.cambridge.org/dictionary/english/fa cilitator), we would argue that the reverse is not necessarily true i.e. that all 'facilitators' are

'supervisors' (as per Proctor's model). Given that our realist synthesis is about <u>supervision</u> training rather than facilitator training, we have therefore not included this term in our searches, nor do we think it necessary to do so.

With respect to the term 'critical companion', we understand this to be employed in 'helping' relationships whereby an experienced 'facilitator' 'accompanies' another on an experiential journey (see Tichen 2003). As above, while supervisors might enact critical companionship with their supervisees, we would argue that 'critical companions' are not necessarily 'supervisors' (as per Proctor's model). Given that our realist synthesis is about supervision training rather than critical companion training, we have therefore not included this term in our searches, nor do we think it necessary to do so.

Note however that we have added a limitation to the revised paper stating that we may inevitably miss terms associated with supervision and/or training, meaning that some important evidence may be missed (see page 15 of the revised manuscript).

5. The training terms need to embrace workplace learning, work based learning, critical companionship and possible also action learning

Thanks to the reviewer for these additional suggestions. We have not used these terms in our search strategies for the following reasons: (1) In terms of workplace/work-based learning, these terms indicate where supervision training takes place. Firstly, we did not feel it necessary as part of our searches to identify or limit in any way where formal supervision training might take place. Secondly, based on our experience of supervision training and the supervision training literature, formal supervision training often occurs as part of classroom-based learning outside the workplace, and/or online or blended learning. So, for these two reasons we do not think it appropriate to add these terms to our searches.

In terms of critical companionship, as explained above: With respect to the term 'critical companion', we understand this to be employed in 'helping' relationships whereby an experienced 'facilitator' 'accompanies' another on an experiential journey (see Tichen 2003). While supervisors might enact

critical companionship with their supervisees, we would argue that 'critical companions' are not necessarily 'supervisors' (as per Proctor's model). Given that our realist synthesis is about <u>supervision</u> training rather than critical companion training, we have therefore not included this term in our searches, nor do we think it necessary to do so.

Finally, in terms of 'action learning', while this is a specific approach to learning that might be employed in supervision training, there are a whole bunch of other approaches that might alternatively be employed (e.g. experiential learning, blended learning, online learning, role-play, etc.). The list of approaches is extensive as per Milne et al. (2011), so we don't think we should single out any one approach to learning that could be used in supervision training as part of our search terms. Indeed, we did not feel it necessary as part of our searches to identify or limit in any way the types of learning approaches that supervision training might use. Instead, we are thoroughly documenting these approaches to learning as part of our extraction process i.e. documenting the interventions.

Note however that we have added a limitation to the revised paper stating that we may inevitably miss terms associated with supervision and/or training meaning that some important evidence may be missed (see page 15 of the revised manuscript).

VERSION 2 - REVIEW

REVIEWER	Geoff Wong University of Oxford, United Kingdom
REVIEW RETURNED	26-Jan-2019
GENERAL COMMENTS	Thank you for asking me to re-review this manuscript.
	I feel the authors have addressed all of my concerns well in their revisions.
	I have no further comments and would recommend 'Accept'.
REVIEWER	Rose Hatala
	Professor, University of British Columbia, Canada
REVIEW RETURNED	31-Jan-2019

GENERAL COMMENTS	Thank you for the effort you have put into this revision. I believe the revisions have satisfactorily addressed the reviewers' concerns.
REVIEWER	Kim Manley
	England Centre for Practice Development, Canterbury Christ
	Church University, Canterbury, England
REVIEW RETURNED	08-Feb-2019

GENERAL COMMENTS	The paper is well written, clear in its intentions and worthwhile. However it seems a shame to be so narrowly focused on supervision, when there are three other search terms that would be advantageous to include 1) facilitation because facilitation as a concept has superseded supervision in many ways but also has a strong theoretical base linked to facilitating reflection and learning as well as support often linked inter-changeably with supervision, mentorship and coaching; 2) practice development, as both continuous professional development and professional development have been included - especially as ones practice is the focus of supervision - although the linked terms that will emerge will be facilitation rather than supervision. The search term critical companionship is identified as not being included in the search as a limitation.3) Learning as well as education - especially as this would be an outcome of supervision and facilitation. I can not agree that supervision is under-represented theoretically as there is a large body of theory underpinning facilitation and also clinical supervision e.g https://www.tandfonline.com/doi/full/10.1080/07325223.2017.1352 549 Particularly if its historical roots are recognised in counselling, psychoanalytic theory etc. These might inform programme theories

VERSION 2 – AUTHOR RESPONSE

Editor/reviewer comment:	Our response:
Editor: Can you please include the dates of coverage for each database searched? We can't find this information in the paper.	As mentioned in our previous author response letter (ARL) we conducted the searches on 08/05/18. We did not place any restrictions on the search parameters by date, which is why we did not include dates of coverage in our original realist synthesis protocol. Despite it being tricky to put the dates into the protocol because the protocol is worded future tense, but we have already conducted our searches and the bulk of our realist synthesis (so past tense), we have added a comment in our revised paper in our section on 'search strategy' about not limiting our searches by date: "we do not plan to limit our searches by date" (see page 10).
Reviewer 1: Thank you for asking me to re-review this manuscript. I feel the authors have addressed	Many thanks to reviewer 1 for his comments and for recommending that our revised protocol being accepted.

all of my concerns well in their revisions. I have no further comments and would recommend 'Accept'.

Reviewer 2: Thank you for the effort you have put into this revision. I believe the revisions have satisfactorily addressed the reviewers' concerns.

Many thanks to reviewer 2 for her comments that we have satisfactorily addressed the reviewers' concerns in our previous revision.

Reviewer 3: The paper is well written, clear in its intentions and worthwhile.

Thanks to reviewer 3 for her positive comments about our realist protocol.

Reviewer 3: However it seems a shame to be so narrowly focused on supervision, when there are three other search terms that would be advantageous to include 1) facilitation because facilitation as a concept has superseded supervision in many ways but also has a strong theoretical base linked to facilitating reflection and learning as well as support often linked interchangeably with supervision, mentorship and coaching; 2) practice development, as both continuous professional development and professional development have been included especially as ones practice is the focus of supervision - although the linked terms that will emerge will be facilitation rather than supervision. The search term critical companionship is identified as not being included in the search as a limitation.3) Learning as well as education - especially as this would be an outcome of supervision and facilitation.

While R3 is perfectly entitled to her opinion that our synthesis is narrowly focused, we disagree that our review is narrowly focused. Indeed, R2 fed back in previous comments that our review was too broad. Indeed, our synthesis search initially identified 11,000 papers which we have reduced down to ~30 based on realist relevance and quality. We respectfully highlight that our realist synthesis is about supervision training not supervision. As we explained in our previous ARL, we do not agree that supervision training and facilitation training are the same things. While supervision may include facilitation, not all 'facilitators' are 'supervisors' (as per Proctor's model), so we have not included this term in our synthesis (which, as an aside, has already been conducted and we are in the throes of writing up). In R3's previous comments, she mentioned facilitation, coaching and critical companionship as alternative search terms. We previously addressed all three search terms in our last ARL and provided justification for why we did not use these terms. However, this is the first time that R3 has mentioned 'practice development' as another potential alternative search term, which we understand is R3's area of expertise. Our understanding of practice development follows the definition: "Practice development is a continuous process of improvement towards increased effectiveness in patientcentred care. This is brought about by helping healthcare teams to develop their knowledge and skills and to transform the culture and context of care. It is enabled and supported by facilitators committed to systematic, rigorous continuous processes of emanicipatory change that reflects the perspectives of service-users" (Garbett & McCormack 2000, p. 3). Again, we see the focus here on facilitation and thus practice development being different to supervision, so we have not included this term in our synthesis. In terms of the reviewer's third point, we want to reiterate that our realist synthesis is not a synthesis of supervision papers but is a synthesis of supervision training papers, plus we are examining any outcomes of supervision training including learning (note that we did not narrow our terms down to any particular outcome of supervision training). While we have not

changed our searches on the basis of R3's opinions, we have added these additional terms in our limitations section to try to partly address R3's comments: "Second, while we will pilot and refine search terms, Boolean operators and proximity searching with the assistance of a medical librarian, we will inevitably omit terms associated with supervision and/or training, for example, critical companion, coaching, facilitation and practice development, meaning that some important evidence may be missed" (see page 15). Note that we have also added these terms to our revised strengths and limitations box (see page 3).

I cannot agree that supervision is under-represented theoretically as there is a large body of theory underpinning facilitation and also clinical supervision e.g. [Sewell 2017]. Particularly if its historical roots are recognised in counselling, psychoanalytic theory etc. These might inform programme theories.

We politely want to re-emphasise to R3 that our realist synthesis is not about supervision, but about supervision training i.e. the training interventions experienced by supervisors. The paper alluded to by R3 i.e. Sewell (2017) outlines a theoretically grounded, evidence-informed, integrated model of clinical supervision within the context of children with severe behavioural difficulties. So, this paper is not about supervision training (the focus of our realist synthesis). So, the program theories we are wanting to develop are ones specific to supervision training interventions (not supervision), of which there is a paucity of literature and why this realist synthesis should fill a considerable gap. We respectfully point out that while there are dozens of reviews (over 30) published on supervision, there are only 3 published reviews specifically on supervision training (i.e. Milne et al. 2011; Gonsalvez & Milne 2010; Tsutsumi 2011), and none of these adequately theorise supervision training.