PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Scoping Review Protocol: Education Initiatives for Medical Psychiatry Collaborative Care
AUTHORS	Shen, Nelson; Sockalingam, Sanjeev; Abi Jaoude, Alexxa; Bailey, Sharon; Bernier, Thérèse; Freeland, Alison; Hawa, Aceel; Hollenberg, Elisa; Woldemichael, Bethel; Wiljer, David

VERSION 1 - REVIEW

REVIEWER	Dr. Thomas Zimmermann Department of Primary Care / General Practice University Clinic Eppendorf (Hamburg, Germany)
REVIEW RETURNED	02-Mar-2017

GENERAL COMMENTS	thank you for giving me the chance to review this manuscript. Fortunately, I've read a paper of a methodologically sound, carefully designed meta-research enterprise. It employs a very elaborate search strategy in order to answer some important research questions regarding training programs for collaborative care in mental health. comment #1 p8 line 13 "While this is not a systematic review, this protocol follows the relevant aspects of the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines [33] to ensure rigour in reporting the methodology" The authors refer to the PRISMA-guideline for systematic reviews, use a top-notch search strategy querying eight data bases, calculate IRR-coefficients, thus doing everything that is needed to integrate data systematically - but finally stopping short doing a scoping review only. Certainly, a scoping review is a scientific effort, worthwile especially to gather evidence in a broad, heterogenous research landscape. But having the chance to integrate data systematically, I'd recommend doing it, thus adding value to its own research. comment #2 p13 line 37 "The articles will not be assessed for quality as it is outside the scope of this review." This comment is intertwined with comment #2. Quality assessment does not seem to be a necessity for a scoping review, as it is not intended to exclude any kind of evidence. Despite that, I'd ask to consider quality assessment anyway. This research uses a lot of resources, calculating coefficients, extracting information, finally combining evidence in a narrative way. The authors claim, that quality assessment is outside the scope of this review. This

	statement seems to downplay the capabilities and resources of this research group. I know, quality assessment can be an excruciating endeavor but a minimal check of quality needs to be implemented in any review effort. In my opinion, this is essential for the wider scientific community to rely on the material that is part of the final report. The scientific community needs to rely on the decisions of this expert group in this particular field, and quality should be part of those decisions. comment #3 A bit irritating is the limitation of this review to English-language publications. The authors employ a very broad research strategy, but limit their perspective to just one scientific language. Canada is by law a bilingual country, and it seems strange to me as a German to limit a search strategy solely to the lingua franca (sic!) of science, excluding one official language in the research group's own country.

REVIEWER	Debra Boeldt Research Associate, University of Colorado-Boulder, USA
REVIEW RETURNED	17-Apr-2017

GENERAL COMMENTS	The proposed study titled “Scoping Review Protocol: Education Initiatives for Medical Psychiatry Collaborative Care” will review existing collaborative care education initiatives. This study is important in consolidating the literature on integrative care education models. The authors establish the necessary steps for a scoping review of the literature. The proposed review study is very interesting and pertinent in understanding existing education models and the development of standardized approaches. • Page 5 Line17 fix the following typo: “demonstrated that collaborative care model” change to “demonstrated that collaborative care models” • The authors briefly mention one limitation on page 3. Can they please include any additional limitations, often encountered in the review process, in the Discussion section? • It is unclear why the authors will use Medline instead of Pubmed. Can they please clarify this choice in the Methods section? • Can the authors please provide additional details about their rationale for choosing the specific search terms. For example, in addition to addiction, did they consider including specific diagnoses (e.g. depression, anxiety, etc.)?

REVIEWER	Peter Coventry University of York, UK
REVIEW RETURNED	25-Apr-2017

GENERAL COMMENTS	The authors make a good case that while there is good evidence of effectiveness of collaborative care there is less good evidence about how such care models can be effectively implemented. They make the argument that much of this comes down to not knowing what the best models of education are to support integrated and multi-professional approaches to mental health care. So in that sense I can see that they are coming at this from an interesting angle.

	The substantive point I'd make here is that I'm not sure the scoping review in its current guise is necessarily going to answer all the questions they have set. Much of the evidence about effectiveness of collaborative care stems from clinical trials (and indeed this is what the bulk of evidence synthesis cited in the background section has drawn on) and some of these trials have shared their training content, others haven't. Two things here. 1) I don't know if the training programmes shared in the context of trials are likely to include the kind of detail and components that speak to the broader issue of addressing at institutional level the need for improved ways of teaching integrated care. Trial based training in collaborative care will have been delivered to get the trial done and is much more responsive and context driven than say a medical education curriculum. 2) And if that is the case then how do the authors expect to identify and analyses components and content of institutional curricular about integrated and collaborative care that might not be published and indexed in medical databases? The section on outcomes was diffuse and I wonder how the authors intend to answer questions that aim to identify outcomes associated with user perception, effectiveness, behaviour change and clinical impact (and indeed do they know exactly how to define these outcomes)? Is a case being made that the content and quality of training will be linked to effectiveness of delivery and clinical outcomes for example? And is there any way to map the data about training to known outcomes about clinical effectiveness from published trials? Also, I don't yet get a sense of how this scoping addresses questions about what education initiatives works best for whom, when and where which is better answered by a realist review and this scoping review falls short of that. Some discussion or acknowledgement of different review approaches would be useful here as they have suggested they did explore other options. A scoping review seems to be the least likely to answer this question but will of course offer a fairly speedy answer about the volume and content of education programmes. Minor: The intro was to long and perhaps needs to get to the argument about implementation and education sooner. There are some gaps: Coventry et al 2013 updated the Archer review published by Cochrane (https://www.ncbi.nlm.nih.gov/pubmed/25264616) and Panagioti et al 2016 have published a definitive IPD showing the benefits of collaborative care for people with depression, with and without comorbid physical health problems.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Dr. Thomas Zimmermann
Institution and Country: Department of Primary Care / General Practice, University Clinic Eppendorf (Hamburg, Germany)
Competing Interests: none declared

Dear editors, dear authors,

thank you for giving me the chance to review this manuscript.

Fortunately, I've read a paper of a methodologically sound, carefully designed meta-research enterprise. It employs a very elaborate search strategy in order to answer some important research questions regarding training programs for collaborative care in mental health.

Authors' Response: Dear Dr. Zimmerman, Thank you for taking the time to review our paper. We are happy to hear that you see the value in our work and that find our methodology sound. Please see below for responses for each of your comments.

comment #1
p8 line 13 "While this is not a systematic review, this protocol follows the relevant aspects of the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines [33] to ensure rigour in reporting the methodology"

The authors refer to the PRISMA-guideline for systematic reviews, use a top-notch search strategy querying eight data bases, calculate IRR-coefficients, thus doing everything that is needed to integrate data systematically - but finally stopping short doing a scoping review only. Certainly, a scoping review is a scientific effort, worthwhile especially to gather evidence in a broad, heterogeneous research landscape. But having the chance to integrate data systematically, I'd recommend doing it, thus adding value to its own research.

Authors Response to Comment #1: Thank you for recognizing the lengths we have taken to ensure that our scoping review was conducted with a high level of rigor and that our search was as comprehensive as possible. Advised by Colquhoun et al.[1], the current best practice is to use PRISMA-P to guide the methodology in the protocol in the absence of a reporting framework for scoping reviews and scoping review protocols[1,2]. PRISMA-ScR currently under development [3].

Your comment highlights an oversight in our manuscript—we did not fully articulate our rationale for this synthesis method. We have revised the protocol to reflect this. We selected this methodology because our research focused on providing a broad-stroke understanding of what has been done in the field by mapping key concepts, types of evidence, and gaps in research related to collaborative care education [4]. We felt that a scoping review best supports the impetus for conducting this review – to inform the development and implementation of our own collaborative care training initiative by learning from the experiences of similar initiatives. Furthermore, we felt that it was more appropriate because we are gleaning these insights from a broad array of artifacts (i.e., journals, grey literature, books, commentary articles) and methodologies (i.e., qualitative, quantitative, and mixed methods). We will be conducting descriptive/narrative synthesis of study outcomes to provide more context to our findings. This will allow the research team and readers to determine the value and probable scope of a full systematic review and meta-analysis as scoping reviews are often seen as a precursor to systematic reviews [2,5]. We will comment on the current state of research for this topic and identify gaps and opportunities for future research in our scoping review manuscript.

Page 6 – "This review is being conducted to inform the development of a collaborative care training initiative emerging from the Medical Psychiatry Alliance, a four-institution, Ministry of Health and Long-Term Care, and philanthropic partnership in Ontario, Canada. Various knowledge synthesis approaches were considered for this review; however, the scoping review methodology is most appropriate especially since the complex area of collaborative care education has not been reviewed comprehensively before [6,7]. To the authors' knowledge, there has been no prior attempt to establish a baseline of knowledge regarding collaborative care education initiatives. Given this knowledge gap

and that literature may be diffuse due to the multidisciplinary nature of collaborative care, scoping reviews are ideal in taking stock of the volume and nature of the literature [7]. Utilizing this form of knowledge synthesis allows for the broad exploration of collaborative care education to map key concepts, evidence types, and gaps in research in a defined field; furthermore, scoping review make use of a wide array of knowledge exhibited through empirical research and anecdotal accounts [8,9,4].

The methodology for this review draws upon Arksey and O'Malley's seminal framework [8] for scoping reviews as the foundation and more recent advancements to the methodology [9,10]. As recommended by Colqohoun et al.[1] , this protocol follows the relevant aspects of the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines[11] to ensure rigour in reporting the methodology in the interim while PRISMA guidelines are developed for scoping reviews[3] . Scoping review share a similar process as a systematic review since they both are rigorous and transparent in identifying eligible literature but are divergent in purpose as scoping reviews aim to map the body of literature rather than sum up the best available research on a specific question [12]. Scoping reviews are often seen as a precursor to systematic reviews as it allows researchers to determine the value and probable scope of a full systematic review and meta-analysis [8,2,5]."

comment #2
p13 line 37 "The articles will not be assessed for quality as it is outside the scope of this review."
This comment is intertwined with comment #2. Quality assessment does not seem to be a necessity for a scoping review, as it is not intended to exclude any kind of evidence. Despite that, I'd ask to consider quality assessment anyway. This research uses a lot of resources, calculating coefficients, extracting information, finally combining evidence in a narrative way. The authors claim, that quality assessment is outside the scope of this review. This statement seems to downplay the capabilities and resources of this research group.

I know, quality assessment can be an excruciating endeavor but a minimal check of quality needs to be implemented in any review effort. In my opinion, this is essential for the wider scientific community to rely on the material that is part of the final report. The scientific community needs to rely on the decisions of this expert group in this particular field, and quality should be part of those decisions.

Authors' Response to Comment #2: Thank you for this suggestion. There is an ongoing debate on the need for the quality assessment of included articles in the scoping review process[12]. Other than the case made by Daudt et al[10], recent methods articles[4,5,12] have remained relatively silent on the matter. Much of this debate hinges on what a scoping review is meant to accomplish. For the purposes of this review, we refer to the seminal framework by Arksey and O'Malley[8], where the scoping review methodology is supposed to be inclusive of different types of literature. The intent is to present a snapshot of what has been accomplished in the field. We are not trying to understand the effectiveness of these educational interventions, but take stock on what has been done and learn from their experiences. That said, we do acknowledge the merit of your comment and will be reporting on composition of the article types and study designs of the identified evaluations. This should provide readers with a proxy of the current state of evidence for collaborative care education. We have also included it as a limitation of this review.

PAGE 3 - "Lastly, studies will not be undergoing a formal quality assessment as this review aims to provide a snapshot of the landscape of collaborative care education initiatives by being inclusive of all types of information available."

comment #3

A bit irritating is the limitation of this review to English-language publications. The authors employ a very broad research strategy, but limit their perspective to just one scientific language. Canada is by law a bilingual country, and it seems strange to me as a German to limit a search strategy solely to the lingua franca (sic!) of science, excluding one official language in the research group's own country.

Authors' Response to Comment #3: We agree that this is a limitation of this review and with health services research generally. Unfortunately, none of the members of our team are fluent enough in any other language to be able to interpret non-English articles We regret not being able to extend the language scope of the article.

Page 3 – "Another limitation of this review is that only materials written in English will be included and that programs from non-English speaking countries may not be represented."

Best regards,
Thomas Zimmermann

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Reviewer: 2
Reviewer Name: Debra Boeldt
Institution and Country: Research Associate, University of Colorado-Boulder, USA
Competing Interests: None declared

The proposed study titled "Scoping Review Protocol: Education Initiatives for Medical Psychiatry Collaborative Care" will review existing collaborative care education initiatives. This study is important in consolidating the literature on integrative care education models. The authors establish the necessary steps for a scoping review of the literature. The proposed review study is very interesting and pertinent in understanding existing education models and the development of standardized approaches.

Authors' Response: Dear Dr. Boeldt, thank you for seeing the pertinence of our review and for your feedback. We have provided individual responses below.

• Page 5 Line17 fix the following typo: "demonstrated that collaborative care model" change to "demonstrated that collaborative care models"

Authors' Response:: Thank you for pointing this out. We have fixed the typo.

• The authors briefly mention one limitation on page 3. Can they please include any additional limitations, often encountered in the review process, in the Discussion section?

Authors' Response: We have included a few more perceived limitations of our research in the "strengths and limitation of this study box" following the abstract (see quotation below). We did not include it in the discussion section (as we are normally accustomed to) as the instruction to authors does not ask for a discussion section. We mistakenly mislabeled the section and have corrected it to Ethics and Dissemination.

Page 3 - "A limitation of the review is … Another limitation of this review is that materials written in English will be included and that collaborative care training programs from non-English speaking countries may not be represented. Lastly, studies will not be undergoing a formal quality assessment as this review aims to provide a snapshot of the landscape of collaborative care education initiatives

by being inclusive of all types of information available."

• It is unclear why the authors will use Medline instead of Pubmed. Can they please clarify this choice in the Methods section?

• Can the authors please provide additional details about their rationale for choosing the specific search terms. For example, in addition to addiction, did they consider including specific diagnoses (e.g. depression, anxiety, etc.)?

Authors' Response: Thank you for highlighting these two points. The search strategy is often taken for granted in the reporting process of literature reviews. It is important for us to be transparent in our search strategy so that it can be reproducible.

We believe that the benefits of searching Medline via the Ovid platform outweighs the risk of missing any articles retrievable via PubMed. The Ovid platform allows for fine-tuning of the Medline search at a level that PubMed does not; furthermore, the Ovid platform is a shared interface with many other databases which allows for quicker translation and switching between databases (i.e., Medline In-Process, PsycINFO, and EMBASE). Lastly, any chances of missing articles from PubMed were further reduced by searching Ovid Medline's "In-Process & Other Non-Indexed Citations" database to capture the most recent literature possible.

With regards to our search terms, we selected the broad terms for use with the MeSH, ERIC, and other subject term indexing which can be "exploded" to catch all relevant topics under a given subject heading. For instance, "exp mental disorders" would catch all possible mental health diagnoses and conditions. This allows for the streamlining of the search syntax which can then be presented in a tidier format. We agree that it may be more intuitive for readers to see the exploded terms; however, the tradeoff is a much longer search strategy for replication. To be more transparent, we revised the manuscript to provide greater context on subject terms when looking over the full strategy included in the appendix. – Please see below for the corresponding revision to the search strategy in the manuscript.

PAGE 8 - "The search strategy was iteratively developed by the research team in collaboration with an experienced medical librarian (SB) and implemented on July 2016 in eight electronic databases: Medline, Medline In-Process, PsycINFO, EMBASE, CINAHL, ERIC, Scopus, and ISI Web of Science. These databases were selected to capture a comprehensive sample of literature from health sciences, psychiatry, education, and other disciplines. The search query was first developed for Medline. Medline (Ovid) was selected as the first database to query because the Ovid interface facilitates fine-tuning at a level that PubMed does not; moreover, an added advantage to using Medline is its use of the National Library of Medicine's controlled vocabulary, MeSH®, to index citations [39]. Any chance in missing articles from PubMed were reduced by searching Ovid Medline "In-Process & Other Non-Indexed Citation" database to capture the most recent literature possible. The Ovid interface is also a shared platform which allows for quicker translation and querying of other Ovid-based databases (Medline In-Process, PsycINFO, and EMBASE).

"The search strategy consisted of subject headings, keywords and related terms for primary care, integrated care, education, and mental health services, personnel, and conditions. Depending on the database, some subject terms were exploded which allowed us to capture all relevant search topics under a given term (e.g., using "exp mental disorders/" in Medline will catch all possible mental health diagnoses and conditions). Terms and concepts were combined using Boolean logic and operators including adjacencies."

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Reviewer: 3
Reviewer Name: Peter Coventry
Institution and Country: University of York, UK
Please state any competing interests or state ‘None declared’: None declared

The authors make a good case that while there is good evidence of effectiveness of collaborative care there is less good evidence about how such care models can be effectively implemented. They make the argument that much of this comes down to not knowing what the best models of education are to support integrated and multi-professional approaches to mental health care. So in that sense I can see that they are coming at this from an interesting angle.

Authors’ Response: Dear Dr. Coventry, Thank you for your thoughtful feedback and for seeing the novelty of our review. Please find our responses to your comments below.

The substantive point I'd make here is that I'm not sure the scoping review in its current guise is necessarily going to answer all the questions they have set. Much of the evidence about effectiveness of collaborative care stems from clinical trials (and indeed this is what the bulk of evidence synthesis cited in the background section has drawn on) and some of these trials have shared their training content, others haven't. Two things here. 1) I don't know if the training programmes shared in the context of trials are likely to include the kind of detail and components that speak to the broader issue of addressing at institutional level the need for improved ways of teaching integrated care. Trial based training in collaborative care will have been delivered to get the trial done and is much more responsive and context driven than say a medical education curriculum. 2) And if that is the case then how do the authors expect to identify and analyses components and content of institutional curricular about integrated and collaborative care that might not be published and indexed in medical databases?

Authors’ Response: Thank you for bringing up this concern. We agree with you that the contents or details will most likely not be adequately captured in clinical trials. This is a bit of a foreshadowing of your minor comment that our introduction was too long. I believe much of what we are trying to accomplish here is lost in the long preamble before we actually start talking about the matter at hand – understanding how collaborative care education programs have been implemented and understanding what worked and didn’t work for them. To make sure we capture literature that can provide this information, we broadened our inclusion criteria, where it is relatively non-discriminant in terms of study design and methodology. Eligible articles for abstraction and analysis will include qualitative studies, mixed method studies, case reports, commentaries, and any other publications where they discuss the experiences of developing and delivering an education program.

PAGE 11 -“This review is inclusive of all types of papers and will include empirical studies, case studies, and commentary articles; however, articles that were viewpoints on how education programs should be implemented outside of the context of an existing program were excluded.”

The section on outcomes was diffuse and I wonder how the authors intend to answer questions that aim to identify outcomes associated with user perception, effectiveness, behaviour change and clinical impact (and indeed do they know exactly how to define these outcomes)? Is a case being made that the content and quality of training will be linked to effectiveness of delivery and clinical outcomes for example? And is there any way to map the data about training to known outcomes

about clinical effectiveness from published trials?

Authors' Response: Good point. Thank you for bringing this potentially confusing point to our attention. The review of outcomes is a secondary purpose of this review and will not be investigated in depth as it would if a systematic review meta-analysis were conducted. We will be defining these outcomes based on the typology of outcomes defined by the Kirkpatrick-Barr framework for interprofessional education. We intend to present a descriptive/narrative presentation of what is reported in the literature. We will not attempt to make any inferences on the effects of the educational delivery (and its variations) on clinical effectiveness. This scoping review will, however, provide, insights on the value of conducting a systematic review/meta-analysis given the volume of evaluations and trials identified in the scoping review. Revisions have been made to ensure that this is more explicitly articulated in the manuscript – please see below.

Page 7 – "Scoping reviews share a similar process as systematic reviews since they both are rigorous and transparent in identifying eligible literature but are divergent in purpose as scoping reviews aim to map the body of literature rather than sum up the best available research on a specific question [12]. Scoping reviews are often seen as a precursor to systematic reviews as it allows researchers to determine the value and probable scope of a full systematic review and meta-analysis [8,2,5]."

Page 8 – "While the primary focus of this review is to take an inventory of existing programs and their processes, this review will also provide a narrative view on the extent in which these initiatives have been evaluated and provide a descriptive review of the effectiveness of current efforts in educating the health professions about collaborative care. The review will ask "What aspects of collaborative care programs have been evaluated" and "What were the outcomes of the evaluations (e.g., user perceptions, attitudinal changes, changes in knowledge and competency, behaviour change, organizational and clinical impact)?"

Page 14 – "Learner and clinical outcomes reported in the studies will be classified based on the Kirkpatrick-Barr framework[13] for interprofessional learner outcomes. This framework was selected because of its focus on interprofessional collaboration which can be applicable to the multi-disciplinary setting. The framework consists of the following outcome typology:
• Level 1: learners' reaction—participant views of the learning experience and satisfaction with the program;
• Level 2a: modification of attitudes/perceptions—changes in reciprocal attitudes or perceptions between participant groups, toward patients/clients and their condition, circumstances, care, and treatment;
• Level 2b: acquisition of knowledge/skills—changes in knowledge and skills;
• Level 3: change in behavior—changes in behavior transferred from the learning environment to the workplace;
o Level 4a: change in organizational practice—changes in the organization or delivery of care attributable to an education program;
o Level 4b: benefits to patients/clients—improvements in the health and well-being of patients/clients as a direct result of an education program."

Also, I don't yet get a sense of how this scoping addresses questions about what education initiatives works best for whom, when and where which is better answered by a realist review and this scoping review falls short of that. Some discussion or acknowledgement of different review approaches would be useful here as they have suggested they did explore other options. A scoping review seems to be the least likely to answer this question but will of course offer a fairly speedy answer about the volume and content of education programmes.

Authors' Response: Thank you for this comment. This comment highlights an oversight in our manuscript as we now realize that we did not fully articulate our rationale for this synthesis method. We completely agree that a realist review would be useful in addressing what works best under what contexts and circumstances – especially since medical education is a complex intervention. We are also strong supporters of using either theory, program theory, and frameworks to understanding the "how" and the "why" of these interventions. This and the "if", however, are not the focal points of this review.

We selected the scoping methodology because our research focused on providing a broad-stroke understanding of what has been done in the field and map the key concepts, types of evidence, and gaps in research related to collaborative care education [4]. We felt that it was more appropriate because we are gleaning these insights from a broad array of artifacts (i.e., journals, grey literature, books, commentary articles) and methodologies (i.e., qualitative, quantitative, and mixed methods).

Page 6-7 –"This review is being conducted to inform the development of a collaborative care training initiative emerging from the Medical Psychiatry Alliance, a four-institution, Ministry of Health and Long-Term Care, and philanthropic partnership in Ontario, Canada. Various knowledge synthesis approaches were considered for this review; however, the scoping review methodology is most appropriate especially since the complex area of collaborative care education has not been reviewed comprehensively before [6,7]. To the authors' knowledge, there has been no prior attempt to establish a baseline of knowledge regarding collaborative care education initiatives. Given this knowledge gap and that literature may be diffuse due to the multidisciplinary nature of collaborative care, scoping reviews are ideal in taking stock of the volume and nature of the literature [7]. Utilizing this form of knowledge synthesis allows for the broad exploration of collaborative care education to map key concepts, evidence types, and gaps in research in a defined field; furthermore, scoping review make use of a wide array of knowledge exhibited through empirical research and anecdotal accounts [8,9,4].

The methodology for this review draws upon Arksey and O'Malley's seminal framework [8] for scoping reviews as the foundation and more recent advancements to the methodology [9,10]. As recommended by Colqohoun et al.[1] , this protocol follows the relevant aspects of the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines[11] to ensure rigour in reporting the methodology in the interim while PRISMA guidelines are developed for scoping reviews[3] . Scoping review share a similar process as a systematic review since they both are rigorous and transparent in identifying eligible literature but are divergent in purpose as scoping reviews aim to map the body of literature rather than sum up the best available research on a specific question [12]. Scoping reviews are often seen as a precursor to systematic reviews as it allows researchers to determine the value and probable scope of a full systematic review and meta-analysis [8,2,5]."

Minor:
The intro was to long and perhaps needs to get to the argument about implementation and education sooner. There are some gaps: Coventry et al 2013 updated the Archer review published by Cochrane (https://www.ncbi.nlm.nih.gov/pubmed/25264616) and Panagioti et al 2016 have published a definitive IPD showing the benefits of collaborative care for people with depression, with and without comorbid physical health problems.

Authors' Response: Good point and thank you for these citations. We have added them to the shortened introduction (citations 16-17).

Page 4 – "Backed by a growing and robust evidence base, there is a case for integrating mental

healthcare into the primary care setting through a collaborative care model. Several meta-analyses[13–17] have demonstrated that collaborative care models can be more effective in treating mental health disorders than usual care."

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Works Cited

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Between Chronic Physical Conditions and the Effectiveness of Collaborative Care for Depression. JAMA Psychiatry 2016;73(9):978. PMID: 27602561

VERSION 2 – REVIEW

REVIEWER	Dr. Thomas Zimmermann Department of Primary Care / General Practice, University Clinic Eppendorf (Hamburg, Germany)
REVIEW RETURNED	28-Jun-2017

GENERAL COMMENTS	thank you for answering my questions and for rewriting some of the paragraphs to include some of the annotations I have made. Good luck! I'll be glad to hear of the results this review will achieve.

REVIEWER	Debra Boeldt University of Colorado-Boulder, USA
REVIEW RETURNED	03-Jul-2017

GENERAL COMMENTS	The authors have adequately answered my questions and addressed my concerns.

REVIEWER	Peter Coventry University of York, UK
REVIEW RETURNED	12-Jun-2017

GENERAL COMMENTS	Thanks to the authors for responding to the reviewer comments. I think this is much improved. For me the essential point was to make it clearer why a scoping review was done and to be more specific about what objectives the scoping review sets out to achieve. Critical here was a better understanding of the relationship between scoping and outcome and I think the four level typology of outcomes is an improvement on the previous list of outcomes that seemed more relevant to an effectiveness review. I can see how the typology now fits with the aim to chart the evidence about medical education (not withstanding the limitation that many reports about collaborative care will not include detail about medical education curricula). The only remaining issue that is not quite fully explained is whether separate searches will be run for the qualitative, mixed-methods and quantitative evidence. And also, I don't get a sense of how data from different study designs will be charted or whether there will be an effort to link qual with quant (especially if drawn from the same study e.g. where qual work was embedded in a trial).

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Dr. Thomas Zimmermann

Institution and Country: Department of Primary Care / General Practice, University Clinic Eppendorf (Hamburg, Germany)
Competing Interests: None declared

Dear authors,

thank you for answering my questions and for rewriting some of the paragraphs to include some of the annotations I have made.

Good luck!

I'll be glad to hear of the results this review will achieve.

Best regards,
TZ

Reviewer: 2
Reviewer Name: Debra Boeldt
Institution and Country: University of Colorado-Boulder, USA
Competing Interests: None declared

The authors have adequately answered my questions and addressed my concerns.

AUTHORS' RESPONSE: Dear Dr. Zimmerman and Dr. Boeldt, Thank you for taking the time to review our protocol and for your valuable insights. The result is a much improved manuscript with greater clarity and transparency in our reporting.

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Reviewer: 3
Reviewer Name: Peter Coventry
Institution and Country: University of York, UK
Competing Interests: None declared

Thanks to the authors for responding to the reviewer comments.

I think this is much improved. For me the essential point was to make it clearer why a scoping review was done and to be more specific about what objectives the scoping review sets out to achieve. Critical here was a better understanding of the relationship between scoping and outcome and I think the four level typology of outcomes is an improvement on the previous list of outcomes that seemed more relevant to an effectiveness review. I can see how the typology now fits with the aim to chart the evidence about medical education (not withstanding the limitation that many reports about collaborative care will not include detail about medical education curricula).

The only remaining issue that is not quite fully explained is whether separate searches will be run for the qualitative, mixed-methods and quantitative evidence. And also, I don't get a sense of how data from different study designs will be charted or whether there will be an effort to link qual with quant (especially if drawn from the same study e.g. where qual work was embedded in a trial)....

AUTHORS' RESPONSE: Dear Dr. Coventry, Thanks again for taking the time to review our protocol

and for helping us refine our reporting. Please see below for our responses and revisions.

Response to comment 1 (re: separate searches) - The search strategy was inclusive of all article type or study methodology/design. The search was only filtered articles published after 1995 and in English. Similarly, our eligibility criteria did not discriminate on article types and study methodology/designs if the article spoke to existing collaborative care education programs.

Page 9 – “The searches were limited to articles in English and published after 1995 – when the collaborative care model was first introduced [20,22].”

Page 10 – “This review is inclusive of all types of literature, thus including commentary articles, case studies, and empirical studies employing all types of methodologies (i.e., qualitative, quantitative, and mixed methods) and study designs.”

Response to comment 2 (re: data charting) - Our review will provide a narrative report of the findings by describing what is in the literature. All of the extracted data will undergo a thematic analysis to identify themes based on the domains/sub-domains outlined in table 1 (i.e., Study details, initiative details, implementation factors). Outcomes from empirical studies (qualitative, quantitative, or mixed method) will be first grouped by Kirkpatrick-Barr typology and then analysed for common themes within each level of the typology. The review will then describe what was found within each of the themes. For example, if we found that some studies reported on behavioural changes (level 3) regarding referral processes, we would report on the quantitative data (such as measured changes in referral practices) and qualitative data (e.g., perspective on the changes in behaviour). Results from mixed methods studies will be presented as reported by the authors.

Each collaborative care education initiative will be regarded as an unit of analysis, where multiple studies from a single initiative will be grouped and described as reported by the authors. No further inferences will be made other than what is reported in the articles. A table summary of all the empirical studies (grouped by initiative) will be included in the scoping review manuscript. The “Stage 5: collating, summarizing, and reporting results” section was expanded to reflect these points.

“Pages 13-14 - Stage 5: collating, summarizing, and reporting the results
The extracted data will first undergo a simple quantitative analysis using descriptive statistics (e.g., frequencies, central tendency measures) to provide numerical summaries of the education initiatives and article or study characteristics[29]. Multiple articles stemming from a single initiative will be grouped and treated as a unit of analysis. The data will also undergo a ‘narrative review’ or a descriptive analysis of the contextual or process-oriented data, where all data will be thematically analysed independently by two reviewers to identify emerging themes found within each of the sub-domains outlined in Table 1. The results will be compared and consolidated by consensus between the two reviewers. The resulting themes will be reviewed by content experts to ensure validity and credibility. The themes will be reported to highlight the similarities, patterns, differences, and outliers found in the literature.

The results from empirical studies (i.e., qualitative, quantitative, and mixed methods) will be classified into learner and clinical outcomes based on the Kirkpatrick-Barr framework[41] for interprofessional learner outcomes. This framework was selected because of its focus on interprofessional collaboration which can be applicable to the multi-disciplinary setting. Thematic analysis will also be used to identify commonalities within each of the levels of the following outcome typology:
• Level 1: learners’ reaction…
• …
Details of the education initiatives and study outcomes will be summarized in a table. The articles will not be assessed for quality as it is outside the scope of this review; however, details of the included

articles (i.e., article type and methodology) will be reported in a summary table to provide context of the maturity of the evidence."