PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	The role of the family doctor in the management of adults with obesity: a scoping review
AUTHORS	Sturgiss, Elizabeth; Elmitt, Nicholas; Haelser, E; van Weel, Chris; Douglas, Kirsty

VERSION 1 – REVIEW

REVIEWER	Amy McPherson Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital
REVIEW RETURNED	22-Sep-2017

GENERAL COMMENTS	Thank you for inviting me to review this well written manuscript addressing an important issue. Please find below comments aimed at enhancing the manuscript further. ABSTRACT - The term 'black literature' is not routinely used in review methodology. Suggest referring to 'peer- reviewed literature' instead. - Clarify that you are focused upon literature relating to adults only. STRENGTHS AND LIMITATIONS - Switch third and fourth bullet point to group strengths together INTRODUCTION The introduction was very strong, with just a few suggestions to enhance the rationale behind the study. - P3, line 56: Suggest referring to obesity as a chronic condition rather than 'health problem', following recommendations from the Canadian Obesity Network and others. - p4, line 36: Clarify what the four pillars of primary care are. For example, are whole person and person- centred care separate pillars? They sound similar. Please clarify. - p4 lines30-31: Why was scoping review methodology selected? How did it help answer your questions (rather than using a systematic review, for example) - p4 lines44-50: Paragraph belongs in the methods section - p5, lines13-16: Should be earlier in intro i.e. before the objectives METHODS The methods were well written. Some additional details would improve clarity. - p5, lines 36: This is the first time you have mentioned adults. Suggest stating your population much earlier. - p5, lines 41: Re. scope, I think your scoping issue is children Vs adults, not about non-communicable diseases.

	That literature would not have answered your research questions. You can return to the question of scope in your discussion. - p5, lines 51-53: How were the countries of interest selected? - p6, line 3: Did the two reviewers both review all of the papers, or did you do 50% each? Was inter-rater reliability calculated at any point? If not, why did you have two reviewers (justify). - p6, lines 8-10: How did you identify the pillars? Did you have specific definitions? Did you do any inter-rater reliability? - p6, lines 16: Consider including a sample search strategy (e.g. for PubMed) as a supplemental file. - p6, lines 34-43: Stakeholder engagement is a good practice when conducting scoping reviews. However, it a little unclear why stakeholders would be consulted about the rationale for the review after the review was completed. It's also not clear what 'meaning behind each data point' means. I wonder if it was more like they helped interpret the findings, or similar? It would be useful to clarify this. RESULTS The authors are commended for summarizing so many papers! However, the results section was the weakest part of the paper, as it lacked the analysis and narrative usually seen with scoping reviews, in order to move the field forward. I have provided some suggestions for consideration to enhance this section. - After the initial paragraph detailing how many citations were identified, I suggest briefly describing an overview of the number of articles using each study design, to provide the reader with an overall picture before delving into the questions. This could be accomplished by moving the text on p7, lines 5-13, to p6, line 53. - Organizing the results under the three research questions provided a useful structure. However, more of a narrative is needed to synthesize the findings of the papers, rather than just their characteristics. For example, under each question, what were the key themes identified from the data? Although there should not be duplication of the information in the tables and text, it would be helpful to the reader to provide the main messages from the tables. It is unlikely that every reader will carefully read the pages and pages of tables. What conclusions can we make about the data? DISCUSSION - The discussion was well written, although without more of a narrative in the results, it was hard to know whether the author's conclusions were supported by the data. - The specific discussion section seemed extremely brief, especially compared with the 'implications for research' section. LIMITATIONS - p10, line 26. State 'adult obesity' rather than just obesity. - Given how many papers the authors identified, would they have scoped their questions to be more specific (or fewer in number) if they were to do it again (hindsight is a wonderful thing!). Were the questions too broad? THROUGHOUT - The word 'data' is plural- change 'data was' to 'data were' throughout the manuscript. - I think 'peak body' is an Australian term. Suggest defining it, or using a more widely used term. - Do a careful check for punctuation to enhance readability.

REVIEWER	Alan Katz Professor, Departments of Community Health Sciences and Family Medicine University of Manitoba, Canada
REVIEW RETURNED	13-Oct-2017

GENERAL COMMENTS	The stated purpose of the scoping review is:"This scoping review aims to examine and map the current research base for the role of the family doctor in managing adults with obesity." Quoting from the published protocol: “It stems from an attempt to perform a systematic review of randomised controlled trials that found only one international trial in which family doctors were the sole practitioner in the intervention (Martin et al. 2006). This broader review aims to determine if this was because randomised controlled trials are not being used to assess the role of the family doctor as a sole practitioner in obesity, or if family doctors as sole practitioners are not being used in interventions for adults with obesity at all. Once the international literature has been evaluated in this scoping review, we will then translate the evidence…” I have 2 major concerns about the paper. Firstly, the paper describes the role of family physicians in practice and research…not the intended research base for the role of the family doctor in managing patients. These are not the same.The questions generated to guide the review seem to have led the team astray from their initial aim of describing the evidence base.Indeed question 3 (What do primary care guidelines say about the role of the family doctor? What do peak bodies say about the role of the family doctor?) does not flow from the aims of the study. I don't see how it belongs in this scoping review. Tables 3 and 5 do not seem to fit with a scoping review of "evidence". My second concern is with regard to the relevance of the narrow focus chosen in terms of the role of the family doctor in managing obesity in 2017. Primary care as it is currently delivered is rarely based on isolated care provided by family physicians. Team based care has become the norm in recognition of the complexity of the task and the overwhelming evidence supporting this approach. Family doctors are generally not well trained to address behavior change specifically related to nutrition or physical activity. The benefit of team based primary care seems to be ignored in this review. The focus on the physician specifically to the exclusion of other relevant professionals seems somewhat of an anachronism. The discussion of the realist review seems superficial and superfluous. The fact that the majority of care (and specifically preventative care) is provided by family physicians should be enough to indicate the importance of the role of family physicians and their teams, in the prevention and management of obesity. Finally,while guidelines seem peripheral to the intended aims (research base), the exclusion of Canada seems strange (Australia, UK, USA, New Zealand, The Netherlands, Denmark, Finland, Estonia, Slovenia, Belgium, Spain, and Portugal). I did not see a PRISMA diagram.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name
Amy McPherson

Please leave your comments for the authors below
Thank you for inviting me to review this well written manuscript addressing an important issue. Please find below comments aimed at enhancing the manuscript further.

ABSTRACT
- The term ‘black literature’ is not routinely used in review methodology. Suggest referring to ‘peer-reviewed literature’ instead.

Response: Thank you this has been changed.

- Clarify that you are focused upon literature relating to adults only.

Response: We have added "adult" a few more times through the introduction and methods to ensure this is clear.

STRENGTHS AND LIMITATIONS
- Switch third and fourth bullet point to group strengths together

INTRODUCTION
The introduction was very strong, with just a few suggestions to enhance the rationale behind the study.

- P3, line 56: Suggest referring to obesity as a chronic condition rather than ‘health problem’, following recommendations from the Canadian Obesity Network and others.

Response: Thank you for detecting this oversight, it has been changed.

- p4, line 36: Clarify what the four pillars of primary care are. For example, are whole person and person- centred care separate pillars? They sound similar. Please clarify.

Response: Thank you - we have now added the missing Oxford comma. We have also defined the terms in brackets.

- p4 lines30-31: Why was scoping review methodology selected? How did it help answer your questions (rather than using a systematic review, for example)

Response: Scoping reviews are the preferred method for broadly searching for patterns and gaps in the literature. We have added: "A scoping review was chosen to explore emerging patterns, or gaps, in the literature base on the role of the family doctor in managing adults with obesity."

- p4 lines44-50: Paragraph belongs in the methods section

Response: Thank you, this has been moved.

- p5, lines13-16: Should be earlier in intro i.e. before the objectives

Response: Thank you for this suggestion. We have moved it and it improves readability.

METHODS
The methods were well written. Some additional details would improve clarity.
- p5, lines 36: This is the first time you have mentioned adults. Suggest stating your population much earlier.

Response: We have now added "adult" at appropriate times throughout the introduction and method. It is also part of the title.

- p5, lines 41: Re. scope, I think your scoping issue is children Vs adults, not about non-communicable diseases. That literature would not have answered your research questions. You can return to the question of scope in your discussion.

Response: There is a very broad literature on diabetes, heart disease, and stroke prevention. When we included all of these articles, that had an element of obesity but were not about obesity, the feasbilty of this scoping review was lost. We have added these specific diagnoses that were excluded to explain the scope. We excluded children and adolescents, not because of a scope issues, but because their management in primary care is already established to be different to that of adults.

- p5, lines 51-53: How were the countries of interest selected?

Response: The international guidelines search was conducted in addition to the general search strategy. These countries were chosen as they are recognised as having strong involvement in the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians. We have added to the limitations section of the discussion that it is possible that we have not included every possible international guideline using this strategy. We have added "In addition to this search strategy, we specifically sought relevant clinical guidelines from countries with strong involvement in the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (Australia, UK, USA, New Zealand, The Netherlands, Denmark, Finland, Estonia, Slovenia, Belgium, Spain, and Portugal). We explored the family medicine college websites from these countries and contacted the colleges via email when guidelines were not accessible."

- p6, line 3: Did the two reviewers both review all of the papers, or did you do 50% each? Was inter-rater reliability calculated at any point? If not, why did you have two reviewers (justify).
Both reviewers independently reviewed papers and did the data extraction. We have now added this to the methods. We have also added to the results: "The inter-rater agreement for the data extraction points exceeded 95% (62 points of disagreement out of 4992 data extraction points)."

- p6, lines 8-10: How did you identify the pillars? Did you have specific definitions? Did you do any inter-rater reliability?

Response: This was how we judged if the whole person or person centred care was present, we have slightly changed the wording to be more clear: "Whole person care was judged as included if the paper described obesity management provided in the context of other health needs. Person-centredness was considered as incorporated when the patient's values, beliefs, cultural needs, or context of their community were discussed." As mentioned, first point of care was part of the search strategy so was not included in the extraction.

- p6, lines 16: Consider including a sample search strategy (e.g. for PubMed) as a supplemental file.

Thank you, this has now been included as a supplementary file.

- p6, lines 34-43: Stakeholder engagement is a good practice when conducting scoping reviews. However, it a little unclear why stakeholders would be consulted about the rationale for the review after the review was completed. It's also not clear what 'meaning behind each data point' means. I wonder if it was more like they helped interpret the findings, or similar? It would be useful to clarify this.

Response: Thank you - this has been clarified as "The input from these meetings was used to debate the justification clarify the reasons for the review, the interpretation of the meaning behind each of the data extraction points, and the synthesis of the findings." Although we had strong reasons for completing this review, we encountered those with differing philisophical standpoints to exploring the role of family doctors, rather than "teams". The presentation to stakeholders highlighted this differing view and allowed us the opportunity to debate the justification.

RESULTS

Comment: The authors are commended for summarizing so many papers! However, the results section was the weakest part of the paper, as it lacked the analysis and narrative usually seen with scoping reviews, in order to move the field forward. I have provided some suggestions for consideration to enhance this section.

Response: We appreciate that the reviewer was under-whelmed by the results section. This is likely due to mismatch between what we actually did in the scoping, and the expectations of the reviewer. We did not assess the outcomes of each of the papers, and therefore we cannot make a narrative around the outcomes. We can only comment on the data that was extracted - that is, how the family doctor was involved, or not, in the literature that we searched. We did not assess the themes of the papers - we only extracted the data in line with our research questions. Now that this initial search has been completed, we have a dataset that can be used to further explore themes in future work. We have added to the results section: "We did not complete a thematic analysis of the included papers."

- After the initial paragraph detailing how many citations were identified, I suggest briefly describing an overview of the number of articles using each study design, to provide the reader with an overall picture before delving into the questions. This could be accomplished by moving the text on p7, lines 5-13, to p6, line 53.

Response: Thank you for this suggestion. We have decided to add this description to question 2, rather than under the initial paragraph. We hope that you find that it still fills the purpose. We have added: "The family doctor was involved in varying ways in obesity management depending on the type of article. The most common role for the family doctor across all types of articles was the diagnosis of obesity. The diagnosis was based on the BMI of the patient and waist circumference measurements were rarely taken. Family doctors were not often involved in intervention studies beyond diagnosis and referral into the trial. Papers about current practice, including audits and surveys, mentioned a lack of recognition and treatment of obesity by family doctors. Current overview and opinion papers often suggested a wide role including diagnosis, nutrition and physical activity counselling, and options for appropriate referrals. And there was great variation in the international guidelines with the family doctor not mentioned by some, to a broad role in others. Unsurprisingly this varied depending on whether a primary care organization had developed the guideline. "

- Organizing the results under the three research questions provided a useful structure. However, more of a narrative is needed to synthesize the findings of the papers, rather than just their characteristics. For example, under each question, what were the key themes identified from the

data? Although there should not be duplication of the information in the tables and text, it would be helpful to the reader to provide the main messages from the tables. It is unlikely that every reader will carefully read the pages and pages of tables. What conclusions can we make about the data?

Response: There may be a disconnect between the expectations of the reviewer, and what are able to actually draw from the data we collected. This is a descriptive scoping review and we have been careful not to overstate the conclusions we can draw from the data extraction. We have added some further descriptions to the results section in an attempt to clarify our synthesis of the data extraction. Usually we would include our conclusions about the data in the discussion section, as we have done in this time. We have also added to the limitations: "Further work would have to be done from the literature that has been identified and this could include a thematic analysis."

DISCUSSION
- The discussion was well written, although without more of a narrative in the results, it was hard to know whether the author's conclusions were supported by the data.

Response: We did not want to overstate what we achieved with the scoping review. We can only give a descriptive analysis of the tpes of studies, and the specific data extraction that took place. We did not do a formal thematic analysis. The most interesting thing about this review is the disconnect between how family doctors are more broadly described in guidelines, and how they are involved in interventions.

- The specific discussion section seemed extremely brief, especially compared with the 'implications for research' section.

Response: We have moved some of the information from "Implications for Research" into the introductory discussion section. This gives better balance to the discussion. We have also added a paragraph about context and intervention translation.

LIMITATIONS
- p10, line 26. State 'adult obesity' rather than just obesity.

Response: Thank you this has been added.

- Given how many papers the authors identified, would they have scoped their questions to be more specific (or fewer in number) if they were to do it again (hindsight is a wonderful thing!). Were the questions too broad?

Response: Yes this scoping review was difficult. We were surprised at how time consuming it was, and how much energy and focus that it took to bring it to completion. We would not recommend scoping reviews for team's that are time poor. Scoping reviews are sometimes seen as the "easy" option compared to a systematic review, but we found the opposite. Being very broad was important to answer the questions we were interested in. If we had narrowed our focus, we would have missed the final finding of our study (the disconnect in the description of the family doctor's role between interventions, through to guidelines). We have not made any changes to the manuscript.

THROUGHOUT
- The word 'data' is plural- change 'data was' to 'data were' throughout the manuscript.

Response: Thank you - we now note that BMJ house style request the use of "data" as plural.

- I think 'peak body' is an Australian term. Suggest defining it, or using a more widely used term.

Response: Yes we did not realise this. We have added "i.e. advocacy group" to explain this. We have retained the "peak body" in line with our prospective protocol.

- Do a careful check for punctuation to enhance readability.

Response: Thank you, we have done this.

Reviewer: 2

Reviewer Name
Alan Katz

Please leave your comments for the authors below

Comment: The stated purpose of the scoping review is:"This scoping review aims to examine and map the current research base for the role of the family doctor in managing adults with obesity."
Quoting from the published protocol:
“It stems from an attempt to perform a systematic review of randomised controlled trials that found only one international trial in which family doctors were the sole practitioner in the intervention (Martin et al. 2006). This broader review aims to determine if this was because randomised controlled trials are not being used to assess the role of the family doctor as a sole practitioner in obesity, or if family doctors as sole practitioners are not being used in interventions for adults with obesity at all. Once the international literature has been evaluated in this scoping review, we will then translate the evidence…”
I have 2 major concerns about the paper. Firstly, the paper describes the role of family physicians in practice and research…not the intended research base for the role of the family doctor in managing patients. These are not the same.The questions generated to guide the review seem to have led the team astray from their initial aim of describing the evidence base.Indeed question 3 (What do primary care guidelines say about the role of the family doctor? What do peak bodies say about the role of the family doctor?) does not flow from the aims of the study. I don't see how it belongs in this scoping review.

Response: We seem to have mislead reviewer 2 with the semantics of "research base" - it would have been better to describe what we have searched with a broader term, like literature. We have amended this in the manuscript. Guidelines are part of secondary evidence, and form part of the "summary" section of the medical evidence pyramid. This is why they were included in the scoping review.

Comment: Tables 3 and 5 do not seem to fit with a scoping review of "evidence".

Response: Again we think we have mislead the reviewer with our choice of terms. We seem to have a misalignment based on primary and secondary forms of evidence, we are interested in both. Furthermore research on current clinical practice is "evidence" of what is happening now. We did not intend the reviewer to associate "evidence" with outcomes based evidence, but in the broader meaning of the term. We have included "primary and secondary" in the manuscript, and changed to "literature" to clarify this in the text. We apologise for the mis-use of terms.

Comment: My second concern is with regard to the relevance of the narrow focus chosen in terms of the role of the family doctor in managing obesity in 2017. Primary care as it is currently delivered is rarely based on isolated care provided by family physicians. Team based care has become the norm in recognition of the complexity of the task and the overwhelming evidence supporting this approach.

Family doctors are generally not well trained to address behavior change specifically related to nutrition or physical activity. The benefit of team based primary care seems to be ignored in this review. The focus on the physician specifically to the exclusion of other relevant professionals seems somewhat of an anachronism.

Response: We agree that team-based interdisciplinary care is best for chronic disease management, including obesity. By exploring the role of a particular professional group we do not seek to question the role of the team as a whole. This push towards interdisciplinary care would be expected to be reflected in the literature. What we saw was family doctors being described as having a holistic role in guidelines and clinical overviews; but only a role of recruitment in most interventions. We have added to the introductory paragraph to clarify our position on teamwork: "By exploring the role of the family doctor, we are not questioning the importance of team-based care. Instead, we aim to explore how family doctors are represented in the broad literature to further understand the profession's role. This understanding is important when interdisciplinary teams are not accessible (e.g. rural location), affordable (e.g. health insurance differentials), or part of the patient's preference for care.5-7 Thus the literature that focuses on the management of adults with obesity by the family doctor is important to understand."
We hope that this alleviates the reviewer's concerns about the reason for this review.

Comment: The discussion of the realist review seems superficial and superfluous. The fact that the majority of care (and specifically preventative care) is provided by family physicians should be enough to indicate the importance of the role of family physicians and their teams, in the prevention and management of obesity.

Response: We used the example of the realist review as further support for evaluating the role of providers. The realist method strongly advocates for the exploration of provider roles. We used this as justification for the question of the scoping review. As it is in the background, we hope that the reader will follow this line of argument. We agree with reviewer 2 that primary care should play an important role in preventative care. This is why it is very interesting to explore the specific role of a team member in the management of obesity. We have reflected our reasons for this in our previous responses.

Comment: Finally,while guidelines seem peripheral to the intended aims (research base), the exclusion of Canada seems strange (Australia, UK, USA, New Zealand, The Netherlands, Denmark, Finland, Estonia, Slovenia, Belgium, Spain, and Portugal).

The Canadian guidelines were identified in the general literature search and there are two Canadian guidelines in table 5.

I did not see a PRISMA diagram.

Response: This was included as Figure 1 at the end of the submission. s

VERSION 2 – REVIEW

REVIEWER	Amy McPherson Bloorview Research Institute
REVIEW RETURNED	08-Dec-2017

GENERAL COMMENTS	The authors addressed each of my concerns. NOTE: Figure 1- PRISMA diagram did not appear in the reviewers' files.