PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Barriers, enablers and initiatives for uptake of advance care planning in General Practice: a systematic review and critical interpretive synthesis
AUTHORS	Risk, Jo; Mohammadi, Leila; Rhee, Joel; Walters, Lucie; Ward, Paul

VERSION 1 – REVIEW

REVIEWER	LINGRUI LIU Yale School of Public Health, U.S.
REVIEW RETURNED	18-Apr-2019

GENERAL COMMENTS	Barriers, enablers and initiatives for uptake of advance care planning in general practice: a systematic review and critical interpretive synthesis Major Comments: Authors clearly defined the key research topics and the key concepts/terms used in these key research questions, which are essential in the review process. The review questions were well-articulated, with a clear scope of the review. It also clearly defined what primary care practice systems are included, with a thorough justification about why some countries' general practice (or equivalent) were included while others were excluded. The Joanna Briggs Critical Appraisal Checklists were used to ensure the quality of this review. The review research design is rigorous. Comments: In the Abstract, what do the "causal modalities" refer to? It is not appropriate to claim causality when the findings actually are about the associated factors. Per the Conceptual framework (Page6), authors presented that they adapted the McCormack framework to a revised framework in Figure 2. It would be helpful to state out what the adaptation was and also justify why this adapted model is a good fit for the research in general practice system. In the decision matrix (Supplementary file 1), it's somewhat confusing with regard to the criteria used at each level of influence and each level's corresponding sample questions. Authors need to clearly define the criteria applied at each level. For example, what about the interaction between patients/patient families and providers? Should it be considered as a level of interpersonal or a level of organizational influence? The example which was listed as at the level of organizational is from the perspective of providers. By naming it "organizational", it may remind readers to understand it from the perspective of the general practice organizational level, rather than "providers". Additionally, the "multi-level" is not clear. Is

	it across the systems or across key stakeholders within one system? The line 8-10 on page 7 is not clear and need a better justification. What does the "potential for more complex interactions between barriers and enablers" like? Mediators? It would be helpful if authors can state out. Line 7-10 on page 8 have grammar issues and hard to read. Table 3: at the individual level, "lack of consumer knowledge"- what did it refer to? Like a patient's knowledge about ACP? At Interpersonal level, "role ambiguity- GP(patient) expectation patient(GP) will initiate"- did it mean "to initiate the conversation/discussion to take ACP"? In Table 3, it didn't include the "multi-level" as what it presented in the decision matrix. Was it dropped because no reference found at this level? Line 58 on page 11, "lack of consensus about who should have an ACP", is confusing. Did it mean the patients who should take ACP given to patient's needs? Line 4 on page 12, it indicated that ACP is only for old people reflects a hidden barrier. But a clear definition of ACP regarding age/disease/other significant factors is missing in the earlier sections. It would be helpful if authors can clarify. Line 36-48, "Barriers at an Organisational level", again, it seems that refer it as "at provider level" could be more straightforward if the actual organizational factors are referred as "at system level". Also, it may be helpful to inform more detail factors which are associated with the barriers generated from the GP end. And, how about the health system/institution's support to GPs regarding ACP? How is the policy/factors at the organizational level (such as human resource, operational functionality which may facilitate the conversations among patients/GP and the coordination among GPs)? "Barriers at a system level", the focus was given to the IT system. There are numerous studies in primary care (though may not exactly on ACP) indicating that the impact of HIT itself is limited if without the other organizational/system level support to improve provider experience and patient outcomes. Line 4-5 on page 13 has grammar issue and is difficult to read. On page 15, "enablers at an organizational level and at a system level", some factors presented in these two sections can be considered either at the organizational (provider) level or system level, like the training support provided by the institution which was presented as an enabler at the organizational level which actually is consistent with the definition of "system" level as it discussed the barriers is at a "system" level. Authors need to be consistent about their definitions of the "organizational" level and the "system" level" throughout the paper. And, how would authors differentiate an "enabler" from a "facilitator" in the ACP? Please correct grammar issues throughout the paper, such as line 43 on page 18, "McCormack(2016) reported (THAT) the social-ecological model had xxx,". It's not clear what the "compelling justification for multi-level intervention" the authors referred to. Line 51-54, page 18, the sentence is too long and has grammar issue which is difficult to read. Line 20-21, page 19, the sentence is too long and has grammar issue which is difficult to read. Line 10-12 on page 20, it is difficult to read.

	In the discussion/conclusion sections, authors may need to explicitly present which studies were generated from Australian health system settings and which were generated from other similar like settings/or different contexts. Otherwise, it is difficult to conclude the applicability of the findings into the Australian settings which is the major objective of this study. This should be also discussed in the limitation section if the evidence found in this study were mostly from other health system settings. *please carefully reconsider those long sentences which are difficult to read and breakdown into shorter sentences. *please correct grammar issues and punctuation issues (e.g., line 29 page 19/ line 17-18 page 20, where appropriate punctuations are missing).

REVIEWER	Annette M. Totten, PhD Oregon Health & Science University USA
REVIEW RETURNED	24-Apr-2019

GENERAL COMMENTS	Comments related to the review Checklist #12. Are study limitations discussed adequately? The section on limitation (p. 20) is adequately, but the Article Summary subtitled “Strengths and limitations of this study” includes only strengths. I suggest summarizing or selecting the most important limitation to include here. # 10. Are they presented clearly? While the language is not wrong per se there are several places where the message or meaning is not clearly conveyed. These could be fixed by minor corrections and editing. Below are several examples: a. Long sentences - P. 3 lines 46-49, suggest making this 2 sentences b. Text that may not be in the most logical section (or new section required) - P. 5 lines 6-32 seems to be more about how determinations were made to include or exclude studies. It is not actually about the search terms per se. Consider adding and inclusion/exclusion criteria subsection of methods. - P. 6 lines 16-18 is about the inclusion and the selection of studies and might be more appropriate in the earlier section. - P. 14 line 52 and p. 15 lines 20-21. Experience with ACP is discussed in both sections as an individual and interpersonal level variable. Can you pick one or else distinguish how these are different more clearly? c. Lack of detail on process - P. 5 lines 38-40. Please specify if screening was done by one person, two people blinded or one person follow by a second review of excludes. - P. 6 line 16. I am not sure peer review is considered an initial proxy for quality in systematic reviews. I suggest you consider deleting that sentence. d. Wording or text that is confusing or unclear - I suggest replacing ‘record’ with study throughout. A systematic review is a synthesis of research and record seems strange.

	- P. 12 lines 45-48. Please clarify if the 1st sentence is based only on the one study cited at the end of the paragraph or if this is supported by multiple studies. - P. 12 line 55-58. The sentence starting 'Difficulties….' is hard to follow and the statement these barriers 'have more relevance in some context than others' is vague. Can you add more detail about what the different contexts are? - P. 13 line 3. It is not clear what is meant by 'depending on the context internationally' - P. 13 line 8. It is not clear if "a lack of shared understanding of who" is about people doing ACP or about what patients are targeted for ACP. Which of these is the 'who' referring to? - P. 13 line 30. It is unclear what 'consideration given' refers to. Are these variable controlled for in the study? - P. 16 line 55. What is meant by 'increase ACP in a nuanced way' is not specific. Please revise to explain what you mean. - P. 17 paragraph starting on line 23. Please identify the De Vleminck study by name when you first talk about it. When I saw 'second key component identified in De Vlemincks" in line 41, I had to hunt for the first and look at the reference to confirm it was De Velminck. Minor formatting or typographical errors or other comments p. 4 line 18, change advanced to advance in 3 places on this line p. 5 line 36. Other earlier references say the search goes through February 2018. This says it was conducted in March 2018. While this may be true, it is probably best to stick with only one date to avoid confusion. p. 5 lines 37 and 47 the fact that duplicates were removed is repeated on these lines. Please edit to just state once. p. 5 line 47. Please clarify that the "records reviewed and catalogued" were the 60 resulting from the full text review. This is not clear. p. 6 line 13-14. Please provide a reference for the critical appraisal tools used. Tables 3 and 4. Please do not double space the text in the cells; it makes it hard to read. p. 12 line 4. Consider changing 'understanding' to perception p. 14 line 50 consider revising to say higher levels of education, if education is a continuous variable. Leave if you mean completion of university/undergraduate –that is how this is likely to be interpreted in the US. Strengths Supplementary File 2 is very helpful Overall the topic is very interesting and the approach is informative.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1	
In the Abstract, what do the "causal modalities" refer to? It is not appropriate to claim causality when the findings actually are about the associated factors.	It is understood this description was confusing and it has been modified to 'mediators and moderators'
Per the Conceptual framework (Page6), authors presented that they adapted the McCormack framework to a revised framework in Figure 2. It would be helpful to state out what the adaptation was and also justify why this adapted model is a good fit for the research in general practice system.	An explanation has been included in the text. The adaptation referred to adoption of the approach in a new context - from health literacy and patient activation to general practice and ACP.
In the decision matrix (Supplementary file 1), it's somewhat confusing with regard to the criteria used at each level of influence and each level's corresponding sample questions. Authors need to clearly define the criteria applied at each level. For example, what about the interaction between patients/patient families and providers? Should it be considered as a level of interpersonal or a level of organizational influence? The example which was listed as at the level of organizational is from the perspective of providers. By naming it "organizational", it may remind readers to understand it from the perspective of the general practice organizational level, rather than "providers". Additionally, the "multi-level" is not clear. Is it across the systems or across key stakeholders within one system?	The description and criteria for each level of influence presented within the decision matrix has been made clearer. The socio-ecological descriptor named 'organisational' is understood to be confusing. Upon reflection, the more appropriate descriptor is 'provider'. 'Provider level' has been adopted and changed throughout the document. This has not altered the intent or the findings and it better represents the intention of the authors. Supplementary file 1 has been modified to reflect this change.

The line 8-10 on page 7 is not clear and need a better justification. What does the "potential for more complex interactions between barriers and enablers" like? Mediators? It would be helpful if authors can state out.	Agree. It was not clear or required. Have deleted the statement
Line 7-10 on page 8 have grammar issues and hard to read.	Acknowledged. Statement modified: There was some consensus across reviews about the need to better understand barriers to and enablers of ACP. (23,26) Some reviews went further to suggest interventions needed to be based on these understandings (23,24) There was general consensus more research was required.
Table 3: at the individual level, "lack of consumer knowledge"- what did it refer to? Like a patient's knowledge about ACP? At Interpersonal level, "role ambiguity- GP(patient) expectation patient(GP) will initiate"- did it mean "to initiate the conversation/discussion to take ACP"?	Descriptions on Table 3 have been expanded. Lack of consumer knowledge about ACP. Role ambiguity - GP expectation patient will initiate discussion about ACP Role ambiguity – Patient expectation GP will initiate discussion about ACP
In Table 3, it didn't include the "multi-level" as what it presented in the decision matrix. Was it dropped because no reference found at this level?	The focus of Table 3 is specifically about Barriers. Table 3 does not have a multi- level category because each barrier identified was mapped to its own relevant level of influence. Where a study identified a number of barriers – each barrier was attributed to the level of influence from which it was described as arising. The reference was noted against each level of barrier it identified. A study identifying multiple barriers across multiple levels will be noted in the reference column multiple times. For example - one multilevel study reported individuals perceived ACP as irrelevant, and providers were reluctant to initiate the ACP discussion because it was the patient role to do so. This was attributed as both an individual level barrier, AND an interpersonal level barrier and the reference attributed to both. This is explained in the text.
Line 58 on page 11, "lack of consensus about who should have an ACP", is confusing. Did it mean the patients who should take ACP given to patient's needs?	I agree this is confusing. The subsequent sentences explain what is intended by the introductory statement but have been edited to make clearer.
Line 4 on page 12, it indicated that ACP is only for old people reflects a hidden barrier. But a clear definition of ACP regarding age/disease/other significant factors is missing in	Fair comment. The justification for the public health importance of ACP was linked in the introduction to the aging population, increasing disease burden and quality of life. It is not reasonable to allude to a 'hidden barrier' in this context. It has been deleted.

the earlier sections. It would be helpful if authors can clarify.	
Line 36-48, “Barriers at an Organisational level”, again, it seems that refer it as “at provider level” could be more straightforward if the actual organizational factors are referred as “at system level”. Also, it may be helpful to inform more detail factors which are associated with the barriers generated from the GP end. And, how about the health system/institution’s support to GPs regarding ACP? How is the policy/factors at the organizational level (such as human resource, operational functionality which may facilitate the conversations among patients/GP and the coordination among GPs)?	Comment about organisational level noted and changed to provider throughout the document With regard to barriers generated from the GP end – unless the barrier was specifically raised in the reviewed literature I have not introduced it. Policy / human resource/ operational functionality issues were predominately raised at a systems level.
“Barriers at a system level”, the focus was given to the IT system. There are numerous studies in primary care (though may not exactly on ACP) indicating that the impact of HIT itself is limited if without the other organizational/system level support to improve provider experience and patient outcomes.	Taken as a comment. I have only reported on the ACP literature – not all general practice literature.
Line 4-5 on page 13 has grammar issue and is difficult to read.	Edited for clarity
On page 15, “enablers at an organizational level and at a system level”, some factors presented in these two sections can be considered either at the organizational (provider) level or system level, like the training support provided by the institution which was presented as an enabler at the organizational level which	Noted. I believe this has now been achieved as noted in previous comments.

actually is consistent with the definition of “system” level as it discussed the barriers is at a “system” level. Authors need to be consistent about their definitions of the “organizational” level and the “system” level” throughout the paper.	
And, how would authors differentiate an “enabler” from a “facilitator” in the ACP?	A number of authors of international publications have used the word facilitator with the same intent as the authors of this publication have used the word ‘enabler’. We do not seek a debate about lexicon. In keeping true to the international authors intentions their language choice has been preserved where used. It should be noted that within the described literature other authors have used the term ‘facilitator’ with an alternate meaning. Facilitator as used by some authors refers to ‘someone who helps to bring about an outcome (such as learning, productivity, or communication) by providing indirect or unobtrusive assistance, guidance, or supervision’ [Merriam-Webster] We have attempted to make this distinction clear where it arises.
Please correct grammar issues throughout the paper, such as line 43 on page 18, “McCormack(2016) reported (THAT) the social-ecological model had xxx,”. It’s not clear what the “compelling justification for multi-level intervention” the authors referred to.	Grammar corrected. The compelling justification referred to the use of the socio-ecological approach. This has been clarified.
Line 51-54, page 18, the sentence is too long and has grammar issue which is difficult to read.	This has been edited
Line 20-21, page 19, the sentence is too long and has grammar issue which is difficult to read.	This has been edited
Line 10-12 on page 20, it is difficult to read.	This has been edited
In the discussion/conclusion sections, authors may need to explicitly present which studies were generated from Australian health system settings and	To note, the bulk of ACP literature was generated in the USA and as described in the introduction, was included based on criteria to assimilate models of care most consistent with Australian general practice. There were no Australian systematic reviews found and limited general practice literature. In

which were generated from other similar like settings/or different contexts. Otherwise, it is difficult to conclude the applicability of the findings into the Australian settings which is the major objective of this study.	considering the applicability of findings into the Australian health care setting the literature presented consistent themes regardless of geographical origin. Based on this consistency of themes, the authors are satisfied that the findings are relatable. We also acknowledge the need for more Australian research on the subject.
This should be also discussed in the limitation section if the evidence found in this study were mostly from other health system settings.	This is already discussed in limitations
*please carefully reconsider those long sentences which are difficult to read and breakdown into shorter sentences.	done
*please correct grammar issues and punctuation issues (e.g., line 29 page 19/ line 17-18 page 20, where appropriate punctuations are missing).	done
REVIEWER 2	
#12. Are study limitations discussed adequately? The section on limitation (p. 20) is adequately, but the Article Summary subtitled “Strengths and limitations of this study” includes only strengths. I suggest summarizing or selecting the most important limitation to include here.	Done.
# 10. Are they presented clearly? While the language is not wrong per se there are several places where the message or meaning is not clearly conveyed. These could be fixed by minor corrections and editing. Below are several examples: a. Long sentences - P. 3 lines 46-49, suggest making this 2 sentences	Corrected

b. Text that may not be in the most logical section (or new section required) - P. 5 lines 6-32 seems to be more about how determinations were made to include or exclude studies. It is not actually about the search terms per se. Consider adding and inclusion/exclusion criteria subsection of methods.	Agree Have changed the title of the subsection to better reflect the content.
- P. 6 lines 16-18 is about the inclusion and the selection of studies and might be more appropriate in the earlier section.	The sentence has been moved as suggested
- P. 14 line 52 and p. 15 lines 20-21. Experience with ACP is discussed in both sections as an individual and interpersonal level variable. Can you pick one or else distinguish how these are different more clearly?	This has been edited. It is a tricky area because individuals operate as individuals simultaneously when also in relation with others. They are separate but not always exclusively so.
c. Lack of detail on process - P. 5 lines 38-40. Please specify if screening was done by one person, two people blinded or one person follow by a second review of excludes.	This is described in the study selection process where it states: Records were reviewed and catalogued by the primary researcher
- P. 6 line 16. I am not sure peer review is considered an initial proxy for quality in systematic reviews. I suggest you consider deleting that sentence.	Deleted
d. Wording or text that is confusing or unclear - I suggest replacing 'record' with study throughout. A systematic review is a synthesis of research and record seems strange.	Done
- P. 12 lines 45-48. Please clarify if the 1st sentence is based only on the one study	This section was supported by multiple studies as outlined in Table 3. It has been edited for clarity.

cited at the end of the paragraph or if this is supported by multiple studies.	
- P. 12 line 55-58. The sentence starting 'Difficulties….' is hard to follow and the statement these barriers 'have more relevance in some context than others' is vague. Can you add more detail about what the different contexts are?	Acknowledged I have edited this section to be more readable.
- P. 13 line 3. It is not clear what is meant by 'depending on the context internationally'	Acknowledged This has been clarified
- P. 13 line 8. It is not clear if "a lack of shared understanding of who" is about people doing ACP or about what patients are targeted for ACP. Which of these is the 'who' referring to?	Acknowledged. This has been clarified
- P. 13 line 30. It is unclear what 'consideration given' refers to. Are these variable controlled for in the study?	The study was a qualitative study and did not control for variables. This has been clarified
- P. 16 line 55. What is meant by 'increase ACP in a nuanced way' is not specific. Please revise to explain what you mean.	Noted This has been clarified.
- P. 17 paragraph starting on line 23. Please identify the De Vleminck study by name when you first talk about it. When I saw 'second key component identified in De Vlemincks" in line 41, I had to hunt for the first and look at the reference to confirm it was De Velminck.	Noted The author's name has been added.
Minor formatting or typographical errors or other comments p. 4 line 18, change advanced to advance in 3 places on this	Noted Changed

line	
p. 5 line 36. Other earlier references say the search goes through February 2018. This says it was conducted in March 2018. While this may be true, it is probably best to stick with only one date to avoid confusion.	The review has been updated to July 2019
p. 5 lines 37 and 47 the fact that duplicates were removed is repeated on these lines. Please edit to just state once.	Noted Edited
p. 5 line 47. Please clarify that the "records reviewed and catalogued" were the 60 resulting from the full text review. This is not clear.	Acknowledged. This section was modified for clarity
p. 6 line 13-14. Please provide a reference for the critical appraisal tools used.	Noted.
Tables 3 and 4. Please do not double space the text in the cells; it makes it hard to read.	Corrected
p. 12 line 4. Consider changing 'understanding' to perception	Noted. This was commented on by both reviewers so I have deleted.
p. 14 line 50 consider revising to say higher levels of education, if education is a continuous variable. Leave if you mean completion of university/undergraduate –that is how this is likely to be interpreted in the US.	Noted. Changed as suggested.

VERSION 2 – REVIEW

REVIEWER	Annette Totten Oregon Health & Science University
REVIEW RETURNED	16-Aug-2019

GENERAL COMMENTS	Thank you for addressing the comments in your revision. My concerns and been addressed in the revision.