PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Development of a self-reported reflective tool on advanced access to support primary healthcare providers: Study protocol of a mixed method research design using an e-Delphi survey
AUTHORS	Breton, Mylaine; Gaboury, Isabelle; Sasseville, Maxime; Beaulieu, Christine; Abou Malham, Sabina; Hudon, catherine; Rodrigues, Isabel; Maillet, Lara; Duhoux, Arnaud; Deville-Stoetzel, Nadia; Haggerty, Jeannie

VERSION 1 – REVIEW

REVIEWER	Ahaus, Kees Erasmus University Rotterdam, Erasmus School of Health Policy & Management, department Health Services Management & Organization
REVIEW RETURNED	31-Jan-2021

GENERAL COMMENTS	Thank you for inviting me to review this manuscript. This paper provides a study protocol focused on advanced access to primary care. The final contribution to literature is a revised online reflective tool to evaluate implementation of the AA model. The authors aim for operationalization of advanced access, development of a questionnaire and evaluation of psychometrics. It's a well-written and interesting paper. However, I do have some concerns which are the following: • In the introduction the authors discuss the AA model and argue that (1) its conceptualization should be adapted to the contemporary context, (2) there is need to develop a reflective tool to support implementation. The substantiation of the need to adapt the current model can be reinforced. In addition, the authors are not clear on how implementation theory plays a role in the tool items. • In the methods section they discuss how a literature review and a consultation of AA experts will lead to a revised AA model with pillars, sub pillars and items that are supported by experts. This in itself is a nice contribution. However, the role of implementation theory has not been discussed. Hence, the tool will typify what needs to be implemented for AA, and not how. • Table 1 is not clear about the decision rules for reaching consensus on items. Why using a 9-points and a 5-points scale? Please, substantiate the cut-off point for reaching consensus earlier in the paper (now, on page 14 a median of above 6 is required, on what literature is this based?). Veugelers et al. (2020) argue to use the CREDES guideline, this guideline might help to make the decision rules more explicit. • Page 12, the authors indicate to build a panel with forty participants (line 2) and twenty for e-Deplhi consultation (line 23),

	how do these panels relate to each other? In addition, how does this number relate to the 25 experts mentioned in the abstract? What's the strategy to support the response rate during the Delphi rounds? • Did the authors consider to use concept mapping in order to validate the pillars of the AA model based on the Delphi results (see Minkman et al., 2009)? • World café and carousel brainstorming are creative but overlapping methods. Maybe better to choose one of these two. • In phase 3 the authors argue that a certain threshold should be defined for implementation. Are AA experts also the users of the tool? Please note that an effective implementation strategy goes beyond ticking the boxes of the tool. • Will the tool only be available in French? Minor issues are: • Page 6 line 32, there seems to miss a word after 'increased professional' • Page 17, line 44, space is missing in 'authorswant'

REVIEWER	Meng, Kai Capital Medical University, School of Public Health
REVIEW RETURNED	11-Feb-2021

GENERAL COMMENTS	This protocol attempts to develop a reflective tool based on Five Pillars of AA model by the Delphi method, which the primary healthcare providers could use this tool to find strengths and weaknesses so as to improve AA practice. The results of this research have practical value. However, some parts of this protocol are needed more clarification in order to better understand of the research plan. It is suggested to make further supplement and improvement. 1. Strengths and limitations of this study The third and fourth points should be the advantages of reflective tool application, not your research content. 2. Introduction In the part of "Historical background of research on advanced access", the content mainly introduced the implementation of AA in Quebec and the results of your previous studies in Quebec. In order to fully understand the research status of AA, it is better to give more relevant studies about other areas. In the part of "An expressed need for a reflective tool" ,"Several guides have been developed", please explain in more detail about the pros and cons of these Guides. If those guides were ideal and effective to be applied directly, there would be no need to conduct this study. Moreover, it has been more than 20 years since Murray proposed AA and some countries have formulated guides, why you say "there is nevertheless no tool to guide the improvement of AA implementation and sustainability"? It is suggested that you elaborate on the reasons to support your opinion to explains the necessity of this study. 3. Methods On the Page8, "The AA self-reported reflective tool aims to provide…of AA and context of practice". Please explain who will use the self-reported reflective tool? Doctors and nurses at PHC? The patient? Or the administrative staff? It should be clarified. In the part of "the expert panel", the experts in Delphi method should have a deep research foundation and a certain authority.

	Please define the selection criteria of expert, what was required to be considered and how they were recruited. Please indicate the authoritative and representative of experts in your study. Please explain whether the same group of experts participated in the three rounds Delphi consultation? Please add the search terms of a literature review on Page 10 Phase1. On page 12 “Round 1”, only the median value was used as indicators of the level of consensus, and it is suggested to combine item dispersion value for judgment. Round2 and 3 Surveys, “The process will continue with further rounds until a consensus on the relevance of each item is reached - or not”. Pleases clarified the criteria for determining consensus, preferably using the quantitative analytical indicators. On page13 Phase 3, Please define what research was the “in an additional exercise” and how many specialists were selected in “some AA experts”. In AA reflective tool refinement part, please describe in more detail of “in five different”. In Development of a repository of recommendations part on Page 13, it seems difficult to relate the results of self-reported reflective tool with recommendation. You could explore recommendation through evidence-based decision making, it could be another study. “The repository of recommendations will be inspired by systematic collation of best practices, by reviewing the literature related” , please explain how the literature review be implemented in your article. The "repository of recommendations" in this part was obtained through the third round Delphi, but what should be done if there is a disagreement among experts? Is it necessary to carry out the fourth round of Delphi consultation? On Page14, “Assessing the psychometric properties of the Reflective tool” will conduct an evaluation of a minimum of 150 to 200 primary healthcare professionals, does it include doctors and nurses or include other people? It seems to conduct a questionnaire survey on these people, but I am confused by how the questionnaire be developed. On page 15 “Patients and public involvement”, but I am confused by the number of "one patient" and "five patient partners", are they representative? 4.Disscussion Discussions should base on the results of the study. 5.List of abbreviations Missing the abbreviation of PCMH：patient-centered Medical Home.

VERSION 1 – AUTHOR RESPONSE

Comments and concerns	**Authors’ Response**
Reviewer 1	
In the introduction the authors discuss the AA model and argue that (1) its conceptualization should be adapted to the	We thank the reviewer for pointing out our lack of clarity. In fact, the project relies heavily on the principles of quality improvement (improving the practice and

contemporary context, (2) there is need to develop a reflective tool to support implementation. The substantiation of the need to adapt the current model can be reinforced. In addition, the authors are not clear on how implementation theory plays a role in the tool items.	sustaining change overtime), rather than implementation theory. We clarified this point on pages 5-6.
In the methods section they discuss how a literature review and a consultation of AA experts will lead to a revised AA model with pillars, sub pillars and items that are supported by experts. This in itself is a nice contribution. However, the role of implementation theory has not been discussed. Hence, the tool will typify what needs to be implemented for AA, and not how.	As identified in a previously comment, we thank you for identifying our lack of clarity in the use of "implementation". We have tried to better position the development of the tool based on a quality improvement approach. As discussed above, inspired by a quality improvement approach, the tool will focus on the processes associated to each pillar, and therefore users of the tool will get a better sense of the gap between their own practice and an ideal practice in AA. Strategies suggested upon completion of the tool will help refine their plan for improvement.
Table 1 is not clear about the decision rules for reaching consensus on items. Why using a 9-points and a 5-points scale? Please, substantiate the cut-off point for reaching consensus earlier in the paper (now, on page 14 a median of above 6 is required, on what literature is this based?). Veugelers et al. (2020) argue to use the CREDES guideline, this guideline might help to make the decision rules more explicit.	New information has been added into the paper to increase clarity on page 11-12, such as choice of response scales. Decision rules have been made more explicit. Please refer to page 11-12 for round 1 and page 12 for rounds 2 and 3. Thank you for bringing up the CREDES guideline to our knowledge. These recommendations were used to develop our study protocol and some information has been added to the protocol to make it clearer.
Page 12, the authors indicate to build a panel with forty participants (line 2) and twenty for e-Delphi consultation (line 23), how do these panels relate to each other? In addition, how does this number relate to the 25 experts mentioned in the abstract? What's the strategy to support the response rate during the Delphi rounds?	Thank you for pointing out this lack of clarity. In fact, 40 experts will be initially invited with the hope that 20 to 25 will participate throughout e-the Delphi rounds, as recommended by the literature. Personalized reminders including the current response rate will be sent out. Each participant will also be given a glass water bottle with the Advanced Access logo at the beginning of the Delphi survey. We have chosen not to add this information in the text to stay within the journal world limit. The following information has also been added on page 9: "Strategies to maximize the retention rate include personalized reminders from one of the principal

	investigators, with the goal of not losing more than 30% of the participants over the 3 expected rounds."
Did the authors consider to use concept mapping in order to validate the pillars of the AA model based on the Delphi results (see Minkman et al., 2009)?	This is an interesting suggestion. We will assess the relevance of such tool after the Delphi. Thank you.
World café and carousel brainstorming are creative but overlapping methods. Maybe better to choose one of these two.	We believe each method has different end purposes. We have tried to clarify each method's purpose in the manuscript in page 10. « A World Café is a simple yet powerful method, originated by Juanita Brown, to enable meaningful conversations driven by participants and the topics that are relevant and important to them,[33,34] to lay the groundwork for common understandings".
In phase 3 the authors argue that a certain threshold should be defined for implementation. Are AA experts also the users of the tool? Please note that an effective implementation strategy goes beyond ticking the boxes of the tool.	Some of the AA experts are PHC professionals who have been early adopters of AA in their own practice and have an extensive personal and organizational experience with regards to AA. Users of the tool will all be professionals in PHC clinics.
Will the tool only be available in French?	The development of the tool will be made in French but we will translate it to English so it can be completed in both languages.
Minor issues • Page 8 line 32, there seems to miss a word after 'increased professional' • Page 17, line 44, space is missing in 'authorswant'	Thank you. We have made the changes requested.
Reviewer 2	
1. Strengths and limitations of this study The third and fourth points should be the advantages of reflective tool application, not your research content.	As recommended, we have refocused the strengths and limitations on the study design and its methods instead of the resulting reflective tool (page 3).
2. Introduction In the part of "Historical background of research on advanced access", the content mainly introduced the implementation of AA in Quebec and the results of your previous studies in Quebec. In order to fully understand the research status of AA, it is better to give more relevant studies about other areas.	Thank you for bringing this lack of clarity to our knowledge. We have changed the title of the 2nd section of the introduction to better reflect its content, which is now: Evolution of AA and state of research in the province of Quebec. Many studies have been made in North America and Europe, with many of them in the USA, the United Kingdom and in other provinces in Canada and we now cite many of them in the 1st section of the introduction (page 4).
In the part of "An expressed need for a reflective tool","Several guides have been developed", please explain in more	We have reworded the information to clarify the needs for a reflective tool. You can find them on page 5. "The guides generally present principles of AA along with of

detail about the pros and cons of these Guides. If those guides were ideal and effective to be applied directly, there would be no need to conduct this study. Moreover, it has been more than 20 years since Murray proposed AA and some countries have formulated guides, why you say "there is nevertheless no tool to guide the improvement of AA implementation and sustainability"? It is suggested that you elaborate on the reasons to support your opinion to explains the necessity of this study.	how to implement changes and some measurement tools. They also offer strategies to support the introduction of AA but lack information and guidance to sustain and improve an AA practice or troubleshoot issues over time. there is no tool even to evaluate the status of AA in a professional's practice, let alone to guide its continuous improvement and sustainability".
3. Methods On the Page8, "The AA self-reported reflective tool aims to provide…of AA and context of practice". Please explain who will use the self-reported reflective tool? Doctors and nurses at PHC? The patient? Or the administrative staff? It should be clarified.	This information was added on p. 6. « This includes: physicians, nurses and nurse practitioners, social workers, pharmacists, nutritionists, psychologists, etc."
In the part of "the expert panel", the experts in Delphi method should have a deep research foundation and a certain authority. Please define the selection criteria of expert, what was required to be considered and how they were recruited Please indicate the authoritative and representative of experts in your study.	The following information about selection criteria was added on page 9: "Participants will be considered for the panel if they are working in PHC or belong to an organization working closely with PHC professionals, and have an extensive experience with AA (5 years+) as a practitioner or manager. Practitioners and managers who were involved in the development of the training sessions provided by the Quebec College of Family Physicians will also be invited". The following information about recruitment is presented in the method section (p.9): "Purposive and snowball sampling techniques will be used to identify eligible participants. Forty potential participants will first be approached and invited by the principal investigators by email to join the expert panel. "
Please explain whether the same group of experts participated in the three rounds Delphi consultation?	All experts approached for round 0 will be invited to take on the survey and the final consultation. The following information has been added on page 9: "Strategies to maximize the retention rate include personalized reminders from one of the principal investigators, with the goal of not losing more than 30% of the participants over the 3 expected rounds".

Please add the search terms of a literature review on Page 10 Phase1.	Search terms have been added on page 10: “Search terms such as “advanced access”, “open-access”, “same-day scheduling”, “timely access” and “AA implementation” will be used”.
On page 12 “Round 1”, only the median value was used as indicators of the level of consensus, and it is suggested to combine item dispersion value for judgment. Round2 and 3 Surveys, “The process will continue with further rounds until a consensus on the relevance of each item is reached - or not”. Pleases clarified the criteria for determining consensus, preferably using the quantitative analytical indicators.	The following additional information is presented: On page 11 for round 1: “There is no commonly defined rule to determine achievement of consensus, so a pre-hoc decision was made to consider 75% agreement to be consensus. “. On page 12 for rounds 2 and 3: “Consensus will be attained if 75% of respondents rate an item, “Very important” or “Essential.” More specifically, consensus will be reached with a median rating of 4 or more, with an interquartile range (IQR) of less than 1. If an item is rated below 4 by more than 25% of respondents, this be interpreted to be non-consensus”.
On page 13 Phase 3, Please define what research was the “in an additional exercise” and how many specialists were selected in “some AA experts”.	Additional information has been added on page 13: “A sub-group of 5 to 10 AA experts who participated in phases 1 and/or 2 will be consulted to formulate and prioritize recommendations for an optimal AA practice.”
In AA reflective tool refinement part, please describe in more detail of “in five different”.	On page 13: “Survey completion sessions will be organized with PHC professionals and staff from five different PHC clinics, who will not have been involved in the previous phases of the study. These survey completion sessions will include feedback discussions on the completion of the tool, and will be led by the research team”.
In Development of a repository of recommendations part on Page 13, it seems difficult to relate the results of self-reported reflective tool with recommendation. You could explore recommendation through evidence-based decision making, it could be another study.	We thank the reviewer for this suggestion. We hope the modifications brought to the manuscript has helped to understand how recommendations could be made based on the results of the tool.
“The repository of recommendations will be inspired by systematic collation of best practices, by reviewing the literature related” , please explain how the literature review be implemented in your article	The following text has been added on page 14: “Implementation guides as well as locally developed help-tools will serve as sources of recommendations for the repository and will be expanded with experiences of AA experts and their close collaborators.”.
The "repository of recommendations" in this part was obtained through the third	The following detail was added on page 14:

round Delphi, but what should be done if there is a disagreement among experts? Is it necessary to carry out the fourth round of Delphi consultation?	"If discussion of recommendations cannot be addressed in the 3rd round of the e-Delphi, we will bring the discussion to experts in an additional face-to-face or virtual meeting."
On Page14, "Assessing the psychometric properties of the Reflective tool" will 3 conduct an evaluation of a minimum of 150 to 200 primary healthcare professionals, does it include doctors and nurses or include other people? It seems to conduct a questionnaire survey on these people, but I am confused by how the questionnaire be developed.	We have reworded the information provided on page 14 to make this clearer: "The final step of development of the tool will consist of the evaluation of some of its psychometric properties. To do so, we plan to recruit a minimum of 150 to 200 PHC professionals in at least 10 PHC clinics that have not been involved in the development of the tool.[46] The family physicians, nurses and other professionals working in those PHC clinics will be asked to complete the newly developed tool and comment on its content".
On page 15 "Patients and public involvement", but I am confused by the number of "one patient" and "five patient partners", are they representative?	Indeed, the involvement of patient partners at different stages of the study can be confusing. We therefore reordered the sentences in this paragraph, presented in page 15 as follow: "At least two patients will be invited to the face-to-face meeting in phase 1 as well as the e-Delphi survey. We are also aiming to consult a patient partners' group related to our research infrastructure at the end of the tool development to discuss issues that may have arisen and could require a patient point of view. This group of patients is composed of 5 patients partners involved in different research project on AA. "
4. Discussion Discussions should base on the results of the study.	This manuscript represents the proposal for the e-Delphi and methods method that will be used to develop the ORAA tool. We could only present the expected impact of the research project at this stage.
5. List of abbreviations Missing the abbreviation of PCMH：patient-centered Medical Home.	We have made the modification.

VERSION 2 – REVIEW

REVIEWER	Ahaus, Kees Erasmus University Rotterdam, Erasmus School of Health Policy & Management, department Health Services Management & Organization
REVIEW RETURNED	04-Sep-2021

GENERAL COMMENTS	• Please check title on use of language: noun seems to be missing after mixed method and 'an e-Delphi survey' instead of 'a e-Delphi survey' • Strengths and limitations are focused on the tool development, which is the next phase. Consider adding a strength or limitation of this study protocol

	• The decision process rules during the Delphi rounds are now much better specified. • I would like to compliment the authors on their approach to develop a self-reflective AA (advanced access) tool with substantiated pillars and sub pillars, with included items being assessed as important, with a well-evaluated questionnaire and with a repository of recommendations. I appreciate the careful and thorough approach.

REVIEWER	Meng, Kai Capital Medical University, School of Public Health
REVIEW RETURNED	02-Jun-2021

GENERAL COMMENTS	I think the author revised the manuscript based on the comments of the two reviewers. The content of this protocol is comprehensive and feasible. I look forward to reading the author's research results soon.

VERSION 2 – AUTHOR RESPONSE

Comments and concerns	**Authors' Response**
Editor	
Reviewer 1	
Please check title on use of language: noun seems to be missing after mixed method and 'an e-Delphi survey' instead of 'a e-Delphi survey'	As a response, we added "research design" after "mixed method" and a "n" in the title as suggested by reviewer 1. The resulting title is the following: *Development of a self-reported reflective tool on advanced access to support primary healthcare providers: Study protocol of a mixed method research design using an e-Delphi survey*
Strengths and limitations are focused on the tool development, which is the next phase. Consider adding a strength or limitation of this study protocol	We added the following phrase in the "Strengths and limitation section": Provides a revisited and operationalization of the pillars and sub-pillars of the advanced access model developed 25 years ago.
The decision process rules during the Delphi rounds are now much better specified.	Thank you for having giving us the opportunity to clarify our method in the protocol.
I would like to compliment the authors on their approach to develop a self-reflective AA (advanced access) tool with substantiated pillars and sub pillars, with included items being assessed as important, with a well-evaluated questionnaire and with a repository of recommendations. I appreciate the careful and thorough approach.	Thank you for this positive comment.
Reviewer 2	

I think the author revised the manuscript based on the comments of the two reviewers. The content of this protocol is comprehensive and feasible. I look forward to reading the author's research results soon.	Thank you for this positive comment.