

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Healthcare professionals' behavior, skills, knowledge and attitudes on evidence-based health practice: a protocol of cross-sectional study.
AUTHORS	Mariano, Arielly; Souza, Nathan; Cavaco, Afonso; Lopes, Luciane

VERSION 1 – REVIEW

REVIEWER	Courtney Benjamin Wolk, PhD Center for Mental Health Policy and Services Research Department of Psychiatry University of Pennsylvania USA
REVIEW RETURNED	19-Jul-2017

GENERAL COMMENTS	<p>The present study protocol manuscript describes a proposed study to develop a standardized instrument to assess Brazilian healthcare providers' behavior, skills, self-efficacy, knowledge, and attitudes toward EBP. Phase 1 consists of survey development and validation activities and Phase 2 is a cross-sectional study of providers using the instrument developed in Phase 1. This study is strengthened by its large sample of Brazilian providers and I appreciate the authors' attention to taking the time to develop a validated, standardized instrument for the Brazilian healthcare provider population. Too often measures of EBP perceptions and use are not sufficiently validated. However, there are a number of limitations to the manuscript that need to be attended to:</p> <ol style="list-style-type: none">1. The manuscript would benefit from additional editing to improve readability and precision of terminology.2. In general, there is a lack of specificity in the methods and analytic plan that make it difficult to evaluate the merits of the proposed study.3. Another larger issue is that the purpose of the proposed study is not clearly communicated. Is the intention that this will inform the selection and scale up of EBP in Brazil? How will it do that?4. This is described in the abstract as a mixed methods study. What specifically is the qualitative component? Is it the Delphi process? How will you analyze the qualitative data? How will the quantitative and qualitative results be integrated? At present their integration is unclear and this needs to be specified in order to position this as a mixed methods study.5. The term EBM is used but not defined in text.6. The Introduction could be streamlined. The research to practice gap and benefits of using EBP in medicine are well-established and could be summarized more succinctly.
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	<p>7. There is a body of literature on implementation science that extends beyond medicine (e.g., in mental health and child welfare) that should be incorporated. For example, there are validated instruments like the Evidence Based Practice Attitudes Scale (EBPAS, Aarons et al., 2004) that will be important to include in your candidate measures and may be missed if the authors' rely on the medical and quality improvement literature exclusively.</p> <p>8. The rationale for creating one measure that encompasses so many areas of EBP implementation (i.e., behavior, skills, knowledge, and attitudes) is not clear. This strikes me as a rather lofty goal.</p> <p>9. Relatedly, it is not clear whether the intention is to create a new measure or to cull existing measures for inclusion. Why create a new measure when so many already exist?</p> <p>10. The authors' propose to distribute the web survey in Phase 2 every week for 12 weeks but the rationale for this is unclear. This seems unnecessarily excessive.</p> <p>11. In Phase 1 the mean test-retest reliability window is described as 7.5 days. Please describe how you arrived at this number. This leads me to believe the study may already be in progress but that is not specified anywhere in the protocol. Please clearly include the study status and anticipate date of completion.</p> <p>12. In Phase 2 the authors' state they will use several strata in their sampling (type of profession, geography, setting). Please specify the details of the plan.</p> <p>13. The term "snail mail" is used which seems overly colloquial. Consider replacing with something like "postal mail".</p>
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REVIEWER	Joelle Robertson-Preidler University of Zurich Switzerland
REVIEW RETURNED	20-Jul-2017

GENERAL COMMENTS	<p>Evidence based practice (EBP) is an important component of quality care delivery. This protocol has the potential to contribute a valuable assessment tool for identifying barriers to and facilitators of EBP application and implementation specific to the Brazilian context that could be used in other contexts to account for cultural and system differences.</p> <p>The protocol includes detailed information on the background and importance of EBP and outlines a solid methodology to undertake the study. However, further organization and clarification of the content, citing studies that have used this same methodology to create and test national surveys, and revising for spelling, grammar, and sentence structure would strengthened this manuscript considerably.</p> <p>Introduction: You provided detailed background for the importance and use of EBP. However, the information could be better structured to give readers necessary background information on EBP and relay the importance of your study without overwhelming them. Organizing the introduction into more structured sections on the importance of EBP for providing quality care, current awareness and perceptions of EBT, gaps in implementation and known barriers to application, and the contribution that your study would make could create a more structured and effective introduction.</p> <p>I suggest that you make the contribution of the study more explicit in</p>
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	<p>the introduction by explaining how this research builds on past research and what its contribution may be. In other words, why is this study needed? How does its Brazilian focus impact the contribution?</p> <p>I would more clearly define what EBP means. Does it refer to practitioners using evidence in their practice in terms of guideline adherence? Does it include evidence interpretation? Does it include studies using qualitative data?</p> <p>Page 4, Lines 134-136 You mention how EBP has contributed to better care and improved outcomes, but I would also mention the limitations and skepticism of EBP, which will probably impact its application in practice.</p> <p>For example, see: Reeve J. Protecting generalism: moving on from evidence-based medicine? <i>The British Journal of General Practice</i>. 2010; 60(576): 521-523. doi:10.3399/bjgp10X514792.</p> <p>Sheridan DJ, Julian DG. Achievements and Limitations of Evidence-Based Medicine. <i>Journal of the American College of Cardiology</i>. 2016; 68(2): 204-13. doi: 10.1016/j.jacc.2016.03.600.</p> <p>Goldman J, Shih T. The Limitations of Evidence-Based Medicine—Applying Population-Based Recommendations to Individual Patients. <i>Virtual Mentor</i>. 2011; 13(1): 26-30. doi: 10.1001/virtualmentor.2011.13.1.jdsc1-1101.</p> <p>Greenhalgh T, Howick J, Maskrey N. Evidence based medicine: a movement in crisis? <i>BMJ</i>. 2014; 348: g3725. doi:10.1136/bmj.g3725.</p> <p>Page 5, Lines 155-158 You mention one potential barrier to implementation, but I would suggest that you further discuss research on currently known barriers and facilitators to EBP implementation and application from the practitioners point of view.</p> <p>For example, see: Swennen M, et al. Doctors' Perceptions and Use of Evidence-Based Medicine: A Systematic Review and Thematic Synthesis of Qualitative Studies. <i>Academic Medicine</i>. 2013; 88(9): 1384–1396. doi: 10.1097/ACM.0b013e31829ed3cc.</p> <p>Rousseau D, Gunia B. "Evidence-based practice: the psychology of EBP implementation." <i>Annual Review of Psychology</i>. 2016; 67: 667-692. doi. 10.1146/annurev-psych-122414-033336.</p> <p>Sadeghi-Bazargani H, Tabrizi JS, and Azami-Aghdash S. "Barriers to evidence-based medicine: a systematic review." <i>Journal of Evaluation in Clinical Practice</i>. 2014; 20(6): 793-802. doi: 10.1111/jep.12222.</p> <p>Page 5, Lines 166-169 You talk about reviews but only mention one review. Are there more than one review that you are referring to? If so, you need to include their references.</p> <p>Page 6, Lines 173-176</p>
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	<p>You need to include references for these validated tests.</p> <p>Methodology Your methodology is very detailed. Make sure to reference studies that have used these same steps to create and validate measures for national surveys.</p> <p>Page 7, lines 208-209 Make sure to indicate that this number is a projected amount or is what you have calculated to be a reliable sample. As it is it seems like you already performed the survey and had this number of respondents.</p> <p>Page 10, line 301 Clarify who “the volunteers” are.</p> <p>Discussion You did a great job discussing the importance of this study, but make sure to clarify this in the introduction. Is there any expected results? Have any former studies looked at the use and barriers to EBP in general or specifically in the Brazilian context? If so, what were their findings and how might your finding relate or expand on these findings?</p> <p>Make sure to include the limitations of this study in the discussion.</p> <p>Page 11, line 338 Will your survey instrument account for culture? If so, make sure to express this clearly in the introduction and methodology.</p>
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VERSION 1 – AUTHOR RESPONSE

Editor Comments to Author:

1) Please revise the title to indicate the study design and setting. This is the preferred format of the journal.

R1 - Thank you. We modified to Healthcare professionals’ behavior, skills, knowledge and attitudes on evidence-based health practice: a protocol of cross sectional study.

2) Please give information on consent in your paper.

R2 - We added this information in methods section as follow: This study protocol has been approved by the Pharmaceutical Sciences Faculty Ethics (1.425.808).

3) Please include a study timeline in your paper, indicating when the study is expected to start and finish.

R3 - We added this information in methods section as follow: the study will start in January 2017 with deadline for its finalization June 2018.

Reviewer 1

General comments

Please leave your comments for the authors below. The present study protocol manuscript describes a proposed study to develop a standardized instrument to assess Brazilian healthcare providers’ behavior, skills, self-efficacy, knowledge, and attitudes toward EBP. Phase 1 consists of survey development and validation activities and Phase 2 is a cross-sectional study of providers using the instrument developed in Phase 1. This study is strengthened by its large sample of Brazilian providers and I appreciate the authors’ attention to taking the time to develop a validated, standardized instrument for the Brazilian healthcare provider population. Too often measures of EBP perceptions and use are not sufficiently validated. However, there are a number of limitations to the manuscript that need to be attended to:

We thank you for all your comments for helping our manuscript become much better.

1. The manuscript would benefit from additional editing to improve readability and precision of terminology.

R1. We asked a native English speaker to review our paper. In addition, we reviewed the technical terms.

2. In general, there is a lack of specificity in the methods and analytic plan that make it difficult to evaluate the merits of the proposed study

R2. We did important changing in methods sections to better understanding our analysis. We highlighted all changed.

3. Another larger issue is that the purpose of the proposed study is not clearly communicated. Is the intention that this will inform the selection and scale up of EBP in Brazil? How will it do that?

We state the goals of this study in the section "Discussion and Disseminations" as follow: "Little research has focused on comparing the use of EBP among different healthcare professions. For EBP to be fully implemented, it is essential to clarify possible differences among professions. No studies were found in Brazil that performed the cultural adaptation of the instruments that evaluate EBP, nor did studies that estimate the psychometric qualities of these instruments. The data collected will provide critical and useful evidence to inform strategies to scale up and qualify EBP in many settings. Some items of this new EBP instrument will target the identification of facilitators and barriers for the adoption of the new paradigm of evidence based clinical practice and to improve patient's care in relation to professionals' fulfillment. These data may be useful to inform the design strategies and intervention to implementation or enhance EBP. The results of this study will be published in a peer-reviewed journal and brief reports of the findings will be disseminated directly to the class councils, public health managers, via CONASS (National Council of Health Secretaries) and in the places where the professionals were selected. The results will help decision-makers and managers lower the barriers to SBE implementation.

4. This is described in the abstract as a mixed methods study. What specifically is the qualitative component? Is it the Delphi process? How will you analyze the qualitative data? How will the quantitative and qualitative results be integrated? At present their integration is unclear and this needs to be specified in order to position this as a mixed methods study

R4. Thank you for your comment. In fact, it is not a mixed methods study. This study intent to build and validated an instrument to understand perceptions and barriers to implement SBE in Brazil in different settings. We decided to make it in one phase as you can see in our new version of the methods section.

5. The term EBM is used but not defined in text.

R5. We didn't use EBM but EBP (evidence based in practice) defined in the first paragraph of Introduction section. In addition we gave, more information the importance of use this approach in clinical practices.

6. The Introduction could be streamlined. The research to practice gap and benefits of using EBP in medicine are well-established and could be summarized more succinctly.

R6. We review the structure of the introduction using your suggestions. In addition, we also modified our discussion justifying this study.

7. There is a body of literature on implementation science that extends beyond medicine (e.g., in mental health and child welfare) that should be incorporated. For example, there are validated instruments like the Evidence Based Practice Attitudes Scale (EBPAS, Aarons et al., 2004) that will be important to include in your candidate measures and may be missed if the authors' rely on the medical and quality improvement literature exclusively.

R7. We modified the introduction including more citations about validated instruments in different setting and health professionals including EBPAS, 2004).

8. The rationale for creating one measure that encompasses so many areas of EBP implementation (i.e., behavior, skills, knowledge, and attitudes) is not clear. This strikes me as a rather lofty goal

R8. Different studies (SHANEYFELT et al., 2006; DRAGAN, 2009; TILSON et al., 2011) have pointed out that tools (scales) developed to assess whether are not completed in all need domains

(perceptions, knowledge, skills, behavior, self-efficacy) or weren't appropriately validate. This motivated us to create a new instrument with the objective of evaluating all-important domains of SBE practice.

9. Relatedly, it is not clear whether the intention is to create a new measure or to cull existing measures for inclusion. Why create a new measure when so many already exist?

R9. According to the critics of the RS found, the existing instruments were either not validated or did not include all the important domains of the SBE. Our idea is to create one based on the several existing ones considering the strengths and limitations analyzed of each one and adjusting to the Brazilian context that is very different from the majority of the countries where the instruments were elaborated and applied.

10. The authors' propose to distribute the web survey in Phase 2 every week for 12 weeks but the rationale for this is unclear. This seems unnecessarily excessive.

R10. We did important changing in the methods section and this phase was modified.

11. In Phase 1 the mean test-retest reliability window is described as 7.5 days. Please describe how you arrived at this number. This leads me to believe the study may already be in progress but that is not specified anywhere in the protocol. Please clearly include the study status and anticipate date of completion.

R11. We haven't started the study. This 7.5 days is our best guess about it. We really don't know then we decided deleted it.

12. In Phase 2 the authors' state they will use several strata in their sampling (type of profession, geography, setting). Please specify the details of the plan.

R12. We modified the methods sections.

13. The term "snail mail" is used which seems overly colloquial. Consider replacing with something like "postal mail".

R13. We agree with you. Thank you.

Reviewer 2

General comments

Introduction:

You provided detailed background for the importance and use of EBP. However, the information could be better structured to give readers necessary background information on EBP and relay the importance of your study without overwhelming them. Organizing the introduction into more structured sections on the importance of EBP for providing quality care, current awareness and perceptions of EBT, gaps in implementation and known barriers to application, and the contribution that your study would make could create a more structured and effective introduction.

I suggest that you make the contribution of the study more explicit in the introduction by explaining how this research builds on past research and what its contribution may be. In other words, why is this study needed? How does its Brazilian focus impact the contribution?

I would more clearly define what EBP means. Does it refer to practitioners using evidence in their practice in terms of guideline adherence? Does it include evidence interpretation? Does it include studies using qualitative data?

R1. Thank you for your comments. We review the structure of the introduction using your suggestions. In addition, we also modified our discussion justifying this study.

Page 4, Lines 134-136

You mention how EBP has contributed to better care and improved outcomes, but I would also mention the limitations and skepticism of EBP, which will probably impact its application in practice.

For example, see:

Reeve J. Protecting generalism: moving on from evidence-based medicine? *The British Journal of General Practice*. 2010; 60(576): 521-523. doi:10.3399/bjgp10X514792.

Sheridan DJ, Julian DG. Achievements and Limitations of Evidence-Based Medicine. *Journal of the American College of Cardiology*. 2016; 68(2): 204-13. doi: 10.1016/j.jacc.2016.03.600.

Goldman J, Shih T. The Limitations of Evidence-Based Medicine—Applying Population-Based Recommendations to Individual Patients. *Virtual Mentor*. 2011; 13(1): 26-30. doi: 10.1001/virtualmentor.2011.13.1.jdsc1-1101.

Greenhalgh T, Howick J, Maskrey N. Evidence based medicine: a movement in crisis? *BMJ*. 2014; 348: g3725. doi:10.1136/bmj.g3725.

R2. Thank you for providing us all these citations. We included all of them in introduction and use to explain how this could be overcome.

Page 5, Lines 155-158

You mention one potential barrier to implementation, but I would suggest that you further discuss research on currently known barriers and facilitators to EBP implementation and application from the practitioners point of view

For example, see:

Swennen M, et al. Doctors' Perceptions and Use of Evidence-Based Medicine: A Systematic Review and Thematic Synthesis of Qualitative Studies. *Academic Medicine*. 2013; 88(9): 1384–1396. doi: 10.1097/ACM.0b013e31829ed3cc.

Rousseau D, Gunia B. "Evidence-based practice: the psychology of EBP implementation." *Annual Review of Psychology*. 2016; 67: 667-692. doi. 10.1146/annurev-psych-122414-033336.

Sadeghi-Bazargani H, Tabrizi JS, and Azami-Aghdash S. "Barriers to evidence-based medicine: a systematic review." *Journal of Evaluation in Clinical Practice*. 2014; 20(6): 793-802. doi: 10.1111/jep.12222

R3 Thank you for providing us all these citations. We included all of them in introduction and use to explain how this could be overcome.

Page 5, Lines 166-169

You talk about reviews but only mention one review. Are there more than one review that you are referring to? If so, you need to include their references.

R4 Thank you for providing us all these citations. We included all of them in introduction and use to explain how this could be overcome.

Page 6, Lines 173-176

You need to include references for these validated tests.

Methodology

Your methodology is very detailed. Make sure to reference studies that have used these same steps to create and validate measures for national surveys.

R5. To describe the method more clearly, we rewrite the steps more succinctly and objectively, referring to other studies.

Page 7, lines 208-209

Make sure to indicate that this number is a projected amount or is what you have calculated to be a reliable sample. As it is it seems like you already performed the survey and had this number of respondents.

R6 We modified this part of the method.

Page 10, line 301

Clarify who "the volunteers" are.

R7. The method is revised and the term is better explained.

Discussion

You did a great job discussing the importance of this study, but make sure to clarify this in the introduction. Is there any expected results? Have any former studies looked at the use and barriers to EBP in general or specifically in the Brazilian context? If so, what were their findings and how might your finding relate or expand on these findings?

R8. There are no studies in Brazil evaluating the practice of SBE among health professionals. We take advantage of the quotations that you have given us to improve this item and to refer correctly.

Make sure to include the limitations of this study in the discussion.

R9. We added as possible limitation of this type of study:

Page 11, line 338

Will your survey instrument account for culture? If so, make sure to express this clearly in the introduction and methodology.

R10. Sorry, we didn't follow your comments.

VERSION 2 – REVIEW

REVIEWER	Courtney Benjamin Wolk University of Pennsylvania, USA
REVIEW RETURNED	06-Dec-2017

GENERAL COMMENTS	<p>This is a review of a revision to a proposed study to develop a standardized instrument to assess Brazilian healthcare providers' behavior, skills, self-efficacy, knowledge, and attitudes toward EBP. The manuscript has been somewhat improved during the revision process however some reviewer comments were not adequately addressed or the response to reviews was unclear. My enthusiasm for the manuscript is tempered by several limitations to the work in its current form.</p> <ol style="list-style-type: none"> 1. The readability of the manuscript has been improved somewhat but would benefit from additional proofreading to improve clarity. 2. Additional details with respect to the methods has been provided, which is helpful. The section on the power analyses is unclear. 3. The term "snail mail" is still used on page 8 despite the author's indication in the response to reviews that this had been changed. 4. The purpose of the project has been clarified somewhat though it isn't clear to me how useful the survey will ultimately be if the aim is to understand EBP use across professionals and how this will inform the broader literature. Why is it important to understand differences between EBP use across disciplines? How will you develop a measure that assesses the constructs proposed, including behavior, skill, and knowledge of EBP, that is appropriate for such a wide audience? For example, the skills and knowledge needed to implement an EBP in the oncology field are very different than the skills and knowledge needed to implement an EBP for children's mental health. The only way I can see to do this would be to create a measure with questions that are very vague (e.g., do you use EBP?) but those are unlikely to tell you much about actual EBP practice and knowledge given lack of specificity and potential for social desirability to influence responding. The author's response to reviews regarding why the authors need to create such an all-encompassing measures was unclear. 5. An additional concern continues to be the lack of grounding in relevant implementation science literature. An additional cite was added referencing the EBPAS as suggested, but otherwise the manuscript has not been improved in this regard. 6. The authors now use SBE but do not define it.
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VERSION 2 – AUTHOR RESPONSE

Editor Comments to Author:

We thank you for all your comments to improve our manuscript.

- Please remove the "what is already known" about this subject and what this study adds sections.

These are not required for submission to BMJ Open.

- We add the section 'Strengths and limitations of this study', including five short bullet points, related specifically to the methods.

- Please ensure that your manuscript is proofread by a native English speaker prior to resubmission, to check for errors in language.

We asked a native English speaker to revise our manuscript. We also sent to a professional agency of translate to update and improve our English in the manuscript.

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Courtney Benjamin Wolk

Institution and Country: University of Pennsylvania, USA

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This is a review of a revision to a proposed study to develop a standardized instrument to assess Brazilian healthcare providers' behaviour, skills, self-efficacy, knowledge, and attitudes toward EBP. The manuscript has been somewhat improved during the revision process however some reviewer comments were not adequately addressed or the response to reviews was unclear. My enthusiasm for the manuscript is tempered by several limitations to the work in its current form.

Thank you very much for your attention to review our manuscript. We will make an effort to address all your concerns.

1. The readability of the manuscript has been improved somewhat but would benefit from additional proofreading to improve clarity.

We asked a native English speaker to review our paper again to improve language clarity.

2. Additional details with respect to the methods has been provided, which is helpful. The section on the power analyses is unclear.

Our studied sample is probabilistically representative of the Health care professionals in Brazil with power of 95%. To reach such power with margin of error 5% our sample size should be 1.270 health care professionals (row 197). We know the optimal sample size for a study assures an adequate power to detect statistical significance. If study is underpowered, it will be statistically inconclusive and may make the whole protocol a failure. This paper covers the essentials in calculating power and sample size for a variety of applied study designs.

3. The term "snail mail" is still used on page 8 despite the author's indication in the response to reviews that this had been changed.

Sorry. We missed it. Now We modified for "postal mail". Thank you.

4. The purpose of the project has been clarified somewhat though it isn't clear to me how useful the survey will ultimately be if the aim is to understand EBP use across professionals and how this will inform the broader literature. Why is it important to understand differences between EBP use across disciplines? How will you develop a measure that assesses the constructs proposed, including behavior, skill, and knowledge of EBP, that is appropriate for such a wide audience? For example, the skills and knowledge needed to implement an EBP in the oncology field are very different than the skills and knowledge needed to implement an EBP for children's mental health. The only way I can see to do this would be to create a measure with questions that are very vague (e.g., do you use EBP?) but those are unlikely to tell you much about actual EBP practice and knowledge given lack of specificity and potential for social desirability to influence responding. The author's response to reviews regarding why the authors need to create such an all-encompassing measures was unclear. We agree with your comment that there is no point in comparing different types of health care professionals or disciplines. We are proposing to find out what the professional of different areas are facing to implement EBP. We also want to identify basic knowledge about the confidence of estimates

in clinical studies or skill in search, screening and assessment of best evidence available in their area. It is very important to understand how clinical practices is confident to use the evidence available to make decision. We haven't found out any tools in Portuguese for specific class of health professionals.

In a country where geographical differences, resource availability and training are enormous, it is important to understand how EBP is being practiced by various specialties and types of health care professionals.

We do not want to know the specifics of each area, we want to know if the professional uses this knowledge to improve better outcomes. It is also important to know if these health care professionals can measure their results/outcomes or understanding the reliability and/or validity of measures in the available evidence concerning their area of practice, or even to translate and apply the evidence in their context. We described this main objective of the study in the introduction.

5. An additional concern continues to be the lack of grounding in relevant implementation science literature. An additional cite was added referencing the EBPAS as suggested, but otherwise the manuscript has not been improved in this regard.

Sorry, we don't follow your concern. We added a paragraph about tools used to measure EBP. We found 104 types of tools. Nevertheless, few authors provide detail on how and how long before the intervention the questionnaires were developed and validated, nor on how the questionnaires were administrated included all relevant tools or SR about the important domains to evaluate EBP. What do you suggest to clarify the lack of relevant science literature?

6. The authors now use SBE but do not define it.

Sorry. We missed it. We changed it

VERSION 3 – REVIEW

REVIEWER	Courtney Benjamin Wolk, PhD University of Pennsylvania, USA
REVIEW RETURNED	26-Mar-2018

GENERAL COMMENTS	<p>This is a review of a second revision to a proposed study to develop a standardized instrument to assess Brazilian healthcare providers' behavior, skills, self-efficacy, knowledge, and attitudes toward EBP.</p> <p>The readability of the manuscript has been improved during the revision process.</p> <p>In the response to reviews the authors further clarify the scope of what they hope to accomplish and provide a more nuanced rationale for their work, which was helpful. The manuscript would continue to benefit from additional clarify with respect to the scope and aims. Therefor, I think it would be helpful to provide some of that additional detail from the response to reviews in the manuscript's introduction to further refine the scope for the reader.</p> <p>Regarding my comment about the lack of grounding in implementation science literature, I am referring to literature from the field of "implementation science" not "science." Implementation science is the field of study of methods to promote adoption and integration of EBPs and policies into routine care. There is an entire journal, called "Implementation Science" devoted to the topic. There has been a great deal of work done in the field of implementation science around provider attitudes toward EBP and contextual factors that are associated with EBP use that is relevant to the work the</p>
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	<p>authors' are engaging in. I think their work would be enriched by a greater grounding in that literature. For example, the CREATE framework you have chosen focuses on education (vs. practice) settings. There are implementation science frameworks, such as the Consolidated Framework for Implementation Research (CFIR) that may also be relevant given your interest in understanding confidence and skill to use EBP in clinical practice.</p>
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VERSION 3 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Courtney Benjamin Wolk, PhD Institution and Country: University of Pennsylvania, USA Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below This is a review of a second revision to a proposed study to develop a standardized instrument to assess Brazilian healthcare providers' behavior, skills, self-efficacy, knowledge, and attitudes toward EBP.

The readability of the manuscript has been improved during the revision process.

In the response to reviews the authors further clarify the scope of what they hope to accomplish and provide a more nuanced rationale for their work, which was helpful. The manuscript would continue to benefit from additional clarify with respect to the scope and aims. Therefor, I think it would be helpful to provide some of that additional detail from the response to reviews in the manuscript's introduction to further refine the scope for the reader.

Regarding my comment about the lack of grounding in implementation science literature, I am referring to literature from the field of "implementation science" not "science." Implementation science is the field of study of methods to promote adoption and integration of EBPs and policies into routine care. There is an entire journal, called "Implementation Science" devoted to the topic. There has been a great deal of work done in the field of implementation science around provider attitudes toward EBP and contextual factors that are associated with EBP use that is relevant to the work the authors' are engaging in. I think their work would be enriched by a greater grounding in that literature. For example, the CREATE framework you have chosen focuses on education (vs. practice) settings. There are implementation science frameworks, such as the Consolidated Framework for Implementation Research (CFIR) that may also be relevant given your interest in understanding confidence and skill to use EBP in clinical practice.

Thank you very much for your attention to review our manuscript. We agree with your important comments about the lack of grounding in implementation science. We added a paragraph including your suggestions in introduction and method section's.