

## 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

<b>TITLE (PROVISIONAL)</b>	Identifying priorities for cancer caregiver interventions: Protocol for a three round modified Delphi study
<b>AUTHORS</b>	Blaschke, Sarah; Lambert, Sylvie; Livingston, Patricia; Aranda, Sanchia; Boltong, Anna; Schofield, Penelope; Chambers, Suzanne; Krishnasamy, Meinir; Ugalde, Anna

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Dong Wook Shin Samsung Medical Center, Korea
<b>REVIEW RETURNED</b>	22-Jul-2018

<b>GENERAL COMMENTS</b>	<p>1. I'm not sure if this study protocol is worth separate publication from the study results. This is not the randomized controlled trial or multicenter cohort study, which needs long-term follow-up. The gap between the protocol to the study result is not long.</p> <p>2. While the reviewer aims to recruit 30-100 experts.. Many of them would not be familiar with all kind of intervention. For example, although I have been doing many research in caregiving topic, I'm not familiar with many interventions. The first step should be give enough information to the participants, so that they can prioritize among many interventions..</p>
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<b>REVIEWER</b>	Francisco Javier Soriano-Vidal Universidad Católica de Valencia, Spain
<b>REVIEW RETURNED</b>	29-Jul-2018

<b>GENERAL COMMENTS</b>	<p>This study protocol addresses a potentially important topic. Effectively planned interventions are of great interest, even more when are directed to a group who, a priori, is usually outside the health system. From my perspective, this protocol meets ethical criteria and its focus is well described, its methodology and further analysis is orientated to successfully solve what has been its aim, and as overall, giving reasonable confidence that would be conducted in a proper manner. I only have the following points that may need to be addressed prior to publication:</p> <ul style="list-style-type: none"><li>• Strength and limitations of the study. Line 6 – page 4. As stated in the journal's requirements, should be no longer that one sentence. Additionally, statement in line 50 – page 3, states a rather a precondition that must be inherent in any study.</li><li>• from line 47-page 5, Introduction. As reference study 22 is self/referenced and yet to be published, a broader detail may be of reader's interest to differentiate between an already published study; how would it be used for the presented protocol? And, would be any</li></ul>
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	<p>influence on the expected results of your proposed study? Would be the data obtained be over redundant?</p> <ul style="list-style-type: none"> <li>• line 22-page 6, Introduction. Aim: five factors to be analysed and not others, further explanations may be required by a possible reader. Why to choose those factors? Is intervention cost-effectiveness taken into consideration?</li> <li>• Finally, even though study flow chart is clearly understood, the journal requires for protocol paper to include the dates of the study in the manuscript.</li> </ul>
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<b>REVIEWER</b>	Erin E. Kent ICF, Inc., Fairfax, VA, USA
<b>REVIEW RETURNED</b>	08-Aug-2018

<b>GENERAL COMMENTS</b>	<p>This protocol describes methodology and planned analyses for an online Delphi panel to assess priorities for developing interventions for cancer caregivers. The target participants are healthcare professionals, a group that has been largely left out of discussions of priority-setting for cancer caregiving research. Sufficient rationale, given the plethora and variety of interventions published, is provided to further priorities the content, setting, delivery, and targeted groups for interventions. The study promises to contribute guidance on how delivery of caregiving interventions, building on the recently published international Delphi study by Lambert et al. that identified priority topic areas for caregiving interventions.</p> <p>Only one major comment for consideration by the authors. One possible missing group from the Delphi panel that wasn't mentioned is the participation of administrators, whose thoughts and opinions about implementing caregiving interventions are greatly important. While this might not fit the study's current goals, it should be considered as an avenue for future research.</p> <p>Minor comments:</p> <ol style="list-style-type: none"> <li>1. Suggest rephrasing sentence on p 1., 46-50 slightly:</li> </ol> <p>Given that interventions are costly, time consuming and challenging to conduct, it is essential that we understand the groups of caregivers likely to benefit from intervention and what to target within an intervention and when to intervene.</p> <p>To something close to:</p> <p>Given that interventions are costly, time consuming and challenging to conduct, it is essential that we understand the those likely to benefit from intervention, what needs to target within an intervention, and when best to intervene.</p> <ol style="list-style-type: none"> <li>2. Missing a period on p. 6, "...barriers to conducting caregiver research."</li> <li>3. p. 9, change "B" next to "Intervention components," to be normal-style font and not italicized.</li> </ol>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer 1

1. I'm not sure if this study protocol is worth separate publication from the study results. This is not the

randomized controlled trial or multicentre cohort study, which needs long-term follow-up. The gap between the protocol to the study result is not long.

Thank you for this comment. While we recognise that Delphi studies are often shorter in timeframe than randomised controlled trials or multicentre cohort studies with long-term follow up, we believe there are important reasons to publish this protocol. Firstly, by the time round 3 analysis is complete and a publication is prepared there will be a very substantial gap between this protocol and final results. Additionally, there are many aspects of this study that are important and contribute to the literature about the conduct of Delphi studies, including: selection of experts, the analysis procedures and justification of the PICO framework. Development of a separate protocol paper allows for these issues to be fully documented and explored and the final results paper can concisely focus on research priorities.

2. While the reviewer aims to recruit 30-100 experts.. Many of them would not be familiar with all kind of intervention. For example, although I have been doing many research in caregiving topic, I'm not familiar with many interventions. The first step should be give enough information to the participants, so that they can prioritize among many interventions..

We agree with the challenges the reviewer has identified in regards to recruiting relevant experts in such a specialized topic area. Based on our knowledge of a very small pool of eligible participants, our recruitment target was set to 30 participants only (please see page 5, Sample size). Given the known challenges with recruiting experts to participate in research, we stated that a maximum of 100 experts will be invited to participate in the study, which we estimate will yield approximately 30 positive responses.

Reviewer: 2

This study protocol addresses a potentially important topic. Effectively planned interventions are of great interest, even more when are directed to a group who, a priori, is usually outside the health system. From my perspective, this protocol meets ethical criteria and its focus is well described, its methodology and further analysis is orientated to successfully solve what has been its aim, and as overall, giving reasonable confidence that would be conducted in a proper manner. I only have the following points that may need to be addressed prior to publication:

- Strength and limitations of the study. Line 6 – page 4. As stated in the journal's requirements, should be no longer than one sentence. Additionally, statement in line 50 – page 3, states a rather a precondition that must be inherent in any study.

Thank you for pointing out this requirement. We have edited the second strengths and limitations section to be clear of the unique contribution of this Delphi protocol paper, and also the fourth strengths and limitations is now one sentence rather than two.

- from line 47-page 5, Introduction. As reference study 22 is self/referenced and yet to be published, a

broader detail may be of reader's interest to differentiate between an already published study; how would it be used for the presented protocol? And, would be any influence on the expected results of your proposed study? Would be the data obtained be over redundant?

As noted by reviewer 3, we consider building on this work to be a strength of our study. This paper is now published and the reference list has been updated. The results generated in the previous work, and the scope of this work, are very different. The lead author of that work is a coinvestigator on this work.

- line 22-page 6, Introduction. Aim: five factors to be analysed and not others, further explanations may be required by a possible reader. Why to choose those factors? Is intervention cost-effectiveness taken into consideration?

Thank you for this comment. We have used an existing framework to guide the factors. If cost-effectiveness is presented by a priority by participants in Round 1, this will be included in Rounds 2 and 3.

- Finally, even though study flow chart is clearly understood, the journal requires for protocol paper to include the dates of the study in the manuscript. We have attended to the study dates, which are now included on page 10 in the section Study Status and Dissemination.

Reviewer: 3

This protocol describes methodology and planned analyses for an online Delphi panel to assess priorities for developing interventions for cancer caregivers. The target participants are healthcare professionals, a group that has been largely left out of discussions of priority-setting for cancer caregiving research. Sufficient rationale, given the plethora and variety of interventions published, is provided to further priorities the content, setting, delivery, and targeted groups for interventions. The study promises to contribute guidance on how delivery of caregiving interventions, building on the recently published international Delphi study by Lambert et al. that identified priority topic areas for caregiving interventions.

We thank the reviewer for these comments.

Only one major comment for consideration by the authors. One possible missing group from the Delphi panel that wasn't mentioned is the participation of administrators, whose thoughts and opinions about implementing caregiving interventions are greatly important. While this might not fit the study's current goals, it should be considered as an avenue for future research.

Thank you for raising this issue. We recognize this as a study limitation given that administrators are likely to have insight into decision-making and delivery of caregiver interventions. We agree with the reviewer that this might not fit the study goals, as we intend to focus our data collection on generating specific knowledge related to caregiver interventions, which is reflected in the stricter selection criteria for the panel experts (see page 4, Selection of experts). We have made some minor edits to the section on Patient and Public Involvement on page 4, and hope these edits clarify our rationale for the target sample. We agree with the reviewer that this is an important avenue for further work and have added this in to the discussion, page 9: "Additionally, exploring the views of administrators in future work would also generate important data."

Minor comments:

1. Suggest rephrasing sentence on p 1., 46-50 slightly:

Given that interventions are costly, time consuming and challenging to conduct, it is essential that we understand the groups of caregivers likely to benefit from intervention and what to target within an intervention and when to intervene. To something close to: 'Given that interventions are costly, time consuming and challenging to conduct, it is essential that we understand the those likely to benefit from intervention, what needs to target within an intervention, and when best to intervene.'

Thank you for this suggestion. We have made this change.

2. Missing a period on p. 6, "...barriers to conducting caregiver research."

Thank you, this has been added.

3. p. 9, change "B" next to "Intervention components," to be normal-style font and not italicized.

The font style has been corrected