Author’s response to reviews

Title: Functional health state description and valuation by people aged 65 and over; a pilot study

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Author’s response to reviews:

To:
Section-Editor Dr Danan Gu
BMC Geriatric

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Dear doctor Dana Gu,

Thank you for reviewing our manuscript entitled: Functional health state description and valuation by people aged 65 and over; a pilot study, and for giving us the opportunity to improve and resubmit our manuscript.

Below we will respond to the comments of the reviewers in a point by point manner, preceded by [response]. In the manuscript, you will find the changes, added in red.
We think the comments have helped us improving our manuscript, and we hope that it will serve as an interesting contribution to the journal.

Sincerely,
On behalf of all authors,

Reviewer #1: Valuing and describing hypothetical health states in people aged 65 and over; a pilot study comparing QoL and functionings

This paper conflates a number of separate research questions into a single report:

Does a capability questionnaire generate self-reported information that supplements / duplicates / corresponds with responses to a generic measure of HrQoL?

Are older respondents able to complete valuation of hypothetical health states?

Is such valuation more or less "successful" if TTO or VAS methods are used?

Do results in South Africa correspond with those from the Netherlands?

This would be an ambitious target in the best of circumstances. However, incomplete information about procedures and materials limits a proper understand of WHAT was actually done.

The manuscript could benefit from restructuring to limit the scope and provide space for a more thorough account of the research that was performed.

Author’s response: We appreciate the feedback and we made efforts to improve the link between the aims and the study that was actually performed. Apparently, the reviewer found the details provided in the methods section insufficiently comprehensive. We attempted to more elaborately explain the procedures and materials that were used, and we hope that these alterations increase the readability and comprehensibility of the paper.
To reply to the above questions:

Does a capability questionnaire generate self-reported information that supplements / duplicates / corresponds with responses to a generic measure of HrQoL?

Author’s response: Previous studies have shown that a generic preference based questionnaire like the EQ-5D, and a functionings-based questionnaire provide complimentary information on quality of life. Thus a capability questionnaire cannot replace a generic HrQoL questionnaire, and yet relevant additional information is obtained. This claim is supported by previous research done by Davis and colleagues, i.e., reference 17 of the manuscript.

Are older respondents able to complete valuation of hypothetical health states?

Author’s response: This was one of the aims of the paper. First we aimed is to study the feasibility through offering elderly from South-Africa and the Netherlands to use both questionnaires to report on their own health and QoL. Ultimately we hope to be able to provide appropriate and more complete information on quality of life for use in future studies among elderly.

Is such valuation more or less "successful" if TTO or VAS methods are used?

Author’s response: We refrain from in depth discussion on the accuracy of the two methods, but part of the aim was to determine whether either of the two methods to elucidate health state valuations, i.e., using a visual analogue scale (VAS) or applying the Time Trade Off method (TTO), would be appropriate for the elderly. As elaborated on in the paper this generally appeared to be the case.

Do results in South Africa correspond with those from the Netherlands?

Author’s response: Keeping in mind the two objectives of the manuscript, the idea was to show that elderly from different parts of the world could report and value their own health. In a larger sample, the questionnaires used can be effective in providing relevant health descriptions and valuations of elderly health and QoL. In addition we state in the implications section: “The questionnaires could identify for which subgroup of elderly the risk of diminished HRQoL and wellbeing would be high. In addition, inclusion of both questionnaires could allow identifying domains and dimensions to be addressed in interventions to maximize elderly QoL and wellbeing”.
The authors discuss the so-called capability approach which they say has

…. two major components of this approach, functionings and capabilities, are one's achieved doings and beings (functionings) and one's ability to achieve certain functionings (capabilities). The idea is to look at what people can do rather than what they actually do.

This tautology is very difficult to accept. The capability approach involves … well, capabilities. Surely it would be better to simply distinguish between achieved functioning and functional "aspirations" - CAN do / ACTUALLY do are not the same as WOULD LIKE TO do.

Authors reply: The capability approach recognizes capabilities, functionings and resources as important elements. We do however agree that we focus on achieved functionings and not the functional aspirations. This is now explicitly stated in the manuscript in the section Questionnaires, page 6.

The sentence “The idea is to look at what people can do rather than what they actually do” has been deleted from the manuscript. We added: In terms of health and quality of life (QoL) capabilities refer to functional aspirations, while functionings refer to achieved health and QoL. We also include the following statement in the CAF questionnaire section: The authors focused on the achieved functionings and not the functional aspirations The Currently Achieved Functionings questionnaire seemed appropriate.

The capability approach …. incorporates non-health aspects such as attachments, role, security, control and enjoyment, which will influence health and ultimately overall wellbeing.

Could/should we therefore expect that capabilities forms a superset that includes health / functioning or is it a separate construct that sits outside health (and HrQoL)? In this confusion EQ-5D is described as a HrQoL measure that records "can do" aspects of health status. This is perhaps correct with regard to the initial 3 dimensions of EQ-5D but not so regarding the latter 2 - pain/discomfort and anxiety/depression are hardly functional domains.
The authors recognise the conceptual "messiness" of this conceptual area. It remains unclear in comparing (say) ICECAP and EQ-5D as to the extent to which they overlap and to what extent the dimensions/domains would be double counted using the two instruments.

Authors reply: The reviewer corroborates the difficulties encountered when attempting to capture (perceived) health especially among elderly, whose capabilities are diminishing. We clearly agree that pain/discomfort and anxiety/depression can hardly be considered as functional domains. Notably, these domains are not explicitly captured in the capabilities questionnaire used in the study. We changed the following: An instrument like the EQ-5D, to a large extent, incorporates HRQoL into the valuation and descriptive capacity, while the capability approach incorporates non-health aspects such as attachments, role, security, control and enjoyment, which will influence health and ultimately overall wellbeing. Line 84 to 87

In line 93 to 95 the authors state that: “Previous studies have shown that a generic preference based questionnaire, like the EQ-5D and a functionings questionnaire provide complimentary information on quality of life”. This information is supported by previous research done by Davis and colleagues, reference 17 of the manuscript. We do however acknowledge that “it is however still uncertain which domains and dimension of the EQ-5D and ICECAP-O questionnaires overlap and to what extent the dimensions/domains might be double counted using the two instruments” Line 97 to 99

This seems to be a fair comment which rather emphasizes the need for a much clearer statement setting out this conceptual minefield. Is this simply a way of juxtaposing a generic HRQoL measure that claims to record information on health status and a so-called functioning questionnaire that measures … well something else. This would at least help orientate the reader. Good point so elaborate on in the discussion - “something else” or rather allows providing a more elaborate overview of the components of well-being that become increasingly relevant with increasing age and dependence.

The study has two reported aims

(a) To test feasibility of two valuation methods (TTO and VAS)

(b) To examine extent to which questionnaires provide comprehensive insight and complimentary information on quality of life and health state valuations for use in a study among elderly.
This last statement describes an objective that is overblown to say the least - comprehensive and complimentary information. This would be a study in its own right.

Authors reply: The aim was not to “examine extent to which questionnaires provide comprehensive insight and complimentary information” but to do a pilot study into the feasibility of the questionnaires. We changed the aims to the following: The aims of the present pilot study was to determine the feasibility of two distinct components. First we aim to study the feasibility of allowing elderly, from South-Africa and the Netherlands, to use both questionnaires to report on their own health and QoL. Ultimately the goal would be to provide appropriate information on quality of life for use in future studies among elderly.

Secondly we aimed to assess whether two commonly used methods to elucidate health state valuations, i.e., a visual analogue scale (VAS) or applying the Time Trade Of method (TTO), would be appropriate for the elderly.

Reference to the CAF is rather difficult to locate. PUBMED for example returns no hits. Please identify a definitive reference for the CAF. If it is difficult for potential readers to access then please consider providing an appendix or online additional material to clarify its structure and content.

On the other hand, perhaps the authors used the ICECAP-O developed by Coast and her team, in which case all references to CAF need to be revised. This uncertainty about EXACTLY what questionnaire was used is fundamental and fatally reduces credibility in the study.

Authors reply: The Currently Achieved Functionings (CAF) questionnaire was devised from the Grewal et. al article. We used the attributes identified in this article to devise a questionnaire. We also added the following statement: The authors however utilized the qualitative attributes proposed by Grewal and colleagues to develop the CAF questionnaire.

Please see the attached version (Appendix B) of the CAF questionnaire used in our study.

The authors indicate that EQ-5D+C was included

… to investigate how the elderly thought of and understood these domains when compared to the functionings questionnaires.
It completely escapes my understanding as to how the mere act of reporting problems on EQ-5D could produce such information unless there was some additional prompting/questions relating specifically to "thought and understanding". Please provide some explanation of how this additional information was obtained.

Authors reply: The above statement may indeed not quite capture what was intended. We thank the reviewer for identifying and pointing out the ambiguity. The original statement was removed from the manuscript and we included the following statement to clarify the usefulness of the EQ-5D + C: We included this questionnaire to investigate if the elderly could understand and complete the questionnaire, which contains, to a large extent, domains concerned with HRQoL.

By now my patience as a reviewer was becoming somewhat pressurised. The account of what ACTUALLY the respondents did in respect of the valuation tasks is very hazy. There is reference to Appendix A and B but the additional material attached to the manuscript seems only to refer to the ethical approval. The EXACT form of TTO task must be described - it is critical to any sort of understanding of the consequential values and must be included.

Authors reply: The authors concede that the relevant Appendixes were not included and apologise. Examples of the TTO and VAS are now included as Appendix D and Appendix E. Please find the description of the TTO and VAS in the Procedure section of the methods. The TTO technique required the respondents to value how much time in health state 111111(full health) is equivalent to 10 years spent in a target state. Target states represent different levels of decline in HRQoL. Thus, a typical TTO valuation task would involve a hypothetical trade-off between length and quality of life.

The description of the VAS method demonstrates why such an account is necessary. The authors indicated that the worst health state was set to DEAD which is rather different to the form used in the EQ-5D. Constraining VAS scores in this way is in marked contrast to the normal TTO procedure that permits the possibility of negative health state values.

Which raises the interesting question as to where exactly are the TTO data reported?
Author’s response: We report on the TTO results in the first paragraph of the results section. In addition we also included some of the elderly’s comments: Comments from the respondents with regard to the task were:

“the TTO exercise placed a heavy cognitive burden on me”, “I feel the TTO exercise is too difficult to complete”; “the VAS is much easier to complete” and “I feel the TTO exercise might not provide accurate results”.

The descriptive statistical analysis could and should be drastically and critically reviewed in any further iteration of this manuscript. With such a small number of respondents it is highly questionable as to whether any of this can be subdivided (repeatedly). Please consider removal of much of the supposed detail here.

Authors reply: We do appreciate the fact that it was not a large sample size as this was in fact a pilot study to assess the feasibility of the method used, and the feasibility of the questionnaires for future research. In the results section we do however report on the results of the different subgroups to indicate that the elderly were able to perform the tasks we required while using both questionnaires. We do not however refer to the descriptive results in the conclusions section and only retain the information congruent with the aim of the study. We did in accordance with reviewer’s suggestion remove non relevant information from the results and conclusions sections of the manuscript. Thus over-interpretation will be avoided.

Finally, to the best of my knowledge the terminology "EQ-6D" is not an officially recognised instrument. The addition of cognition resulted exclusively from a Dutch initiative and the term "EQ-5D+C” has been tolerated in the literature. For the record it is worth noting that there was originally a 6D version - in fact this existed only for some months during the early development of what is now recognised as EQ-5D. I strongly recommend that the EQ-6D reference is clarified with the Business Office of the EuroQol Group in Rotterdam (www.euroqol.org) as there may be TM infringement issues which ought to be avoided.

Authors reply: We will refer to the EQ-5D + C, since this term is the accepted vernacular.

Reviewer #2: The study investigates whether two measurement tools of EQ5D+C and CAF could better capture quality of life among older people using two pilots studies from South Africa with 40 respondents and from the Netherlands with 30 respondents. Overall, the quality of
the paper is OK. However, this paper has some defects as I listed below that need the authors to adequately address them.

1. What I concern most is the small sample size in these two pilot studies. Too small sample size could make the research outcomes less reliable as the results are likely biased. I would suggest the authors at least double their sample size to draw more robust conclusions.

Authors reply: We do appreciate the fact that it was not a large sample size as this was only a pilot study to assess the feasibility of the method used and the feasibility of the questionnaires used for future research. This is explicitly stated in the introduction as main goal. In the results section we do however report on the results of the different subgroups to indicate that the elderly were able to perform the tasks we required, while using both questionnaires. We do not however refer to the descriptive results in the conclusions section and only retain the information congruent with the aim of the study. See also the pertaining remark made by the 1st reviewer.

2. The sample size for South Africa is inconsistent between Abstract (and the text in Methods) and tables.

Authors reply: The reviewer noted an editing error that should have been recognised in an earlier version. We sincerely apologise. The discrepancies between abstract, methods and tables have been corrected. The three groups referred to in the tables do not include the fourth elderly group that performed the Time Trade Off exercise.

3. It is more common to use "evaluate" or "evaluation" than to use "value" and "valuation" to make an assessment of something.

Authors reply: Valuation was preferred over evaluate due to the fact that valuation is the terminology used to refer to valuation of health states when an actual value is attached to that specific health state by the evaluator. We attach the following reference as supporting evidence: Comparison of different valuation methods for population health status measured by the EQ-5D in three European countries. Bernert,S. 2009

4. Abstract, Background (also Background in the body text): The aim of this research stated is not consistent with the title. Please revise the statement in Background of Abstract to better match the title. Furthermore, the sentence "to improve elderly quality of life and health state
valuation (evaluation)” may consider deleting with direct objectives since these are not the purpose of this research.

Authors reply: The sentence “to improve elderly quality of life and health state valuation” was removed from the background since this was not the purpose of the research. The title of the paper has been adjusted to better match the contents of the paper.

5. Abstract: VAS and TTO should be spelt out. The meaning of VAS values should briefly introduced. Otherwise, it is difficult for readers to understand these values, such as 0.06 and 0.41.

Authors reply: VAS and TTO is spelt out in the abstract section. The VAS procedure is also briefly described in the methods section, line 193 to 194.

6. No any appendices were provided, although the authors noted the TTO method (Appendix A) and VAS method (Appendix B). Only till I have these supporting materials can I make any further common on TTO and VAS.

Authors reply: The authors concede that the relevant Appendixes were not included. Examples of the TTO and VAS are now included as Appendix D and Appendix E.

7. Background, Line 72: "EQ5D+Cof" should be "EQ5D+C of". There should be a space between C and of.

Authors reply: We corrected this issue.

8. There should have some brief introductions about EQ5+D, EQ5D+C, and ICECAP-O. May consider providing measurement items as Appendices. Although the authors mentioned the five domains of EQ5D+C, how man items included in EQ5D+C are unclear.

Authors reply: We agree such appendices will be relevant for future reference. Please see the attached version Appendix B of the CAF and Appendix C of the EQ5D+C questionnaires used in our study.
9. Discussion and Conclusions should be split (Please use Conclusions instead of conclusion and a Conclusions section should be placed after implications). The Discussion should be enhanced to focus on the major findings by linking with literature.

Authors reply: Discussion and conclusions was split, with references in the discussion section to previous literature.

10. The paper can benefit for a professional editing and/or proofread.

Thank you for the opportunity to resubmit this draft. The authors of this paper sincerely attempted to address the comments and concerns raised by the reviewers. We do hope that this paper will make a substantial contribution to existing knowledge and literature, since elderly health care and QoL is a global issue that must be addressed and understood. We further do hope that the changes and rectifications satisfies your doubts and concerns.