

PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Development of the My Positive Health dialogue tool for children: a qualitative study on children's views of health
AUTHORS	de Jong-Witjes, Stacey Kars, Marijke C. van Vliet, Marja Huber, Machteld van der Laan, Sabine E.I. Gelens, Eva N. Berkelbach van der Sprenkel, Emma Nijhof, Sanne L. de Jonge, Maretha V. Rippen, Hester van de Putte, Elise M.

VERSION 1 – REVIEW

REVIEWER	Reviewer name: Dr. Donna Koller Institution and Country: Ryerson University, Early Childhood Studies, Toronto, Canada Competing interests: None
REVIEW RETURNED	16-Jan-2022

GENERAL COMMENTS	<p>This is a very interesting article that describes a project that ascertained the views of healthy and chronically ill children on concepts associated with health. The framework or tool was based on one that is currently applied to adults. The need to provide a similar tool for children for the sake of clinical treatment and improvements to health is the justification provided for this empirical study.</p> <p>There are several strengths in this study - predominantly that children's views were ascertained directly and that follow up was conducted with a children's council in the pediatric hospital. This supports some ethical principles in terms of follow up and member checking to some extent, although the actual participants who were interviewed were not followed up with, but rather the children's council.</p> <p>Overall, the article would benefit from a good edit as there were some instances of poor grammar - i.e. in the abstract: 'children with a chronic condition was used'</p> <p>Table 1 was helpful in comparing the adult tool and how it was adapted for the children's version - I don't know whether the terms or concepts translate so clearly from one to the other - for example - meaningfulness on the adult side is translated to mean 'who am I and what do I want?' on the child side. There is a danger in assuming that derivations of an existing term can easily be translated into language that children can access. There is also a threat that a loss of initial meaning occurred.</p> <p>It was later noted that the younger participants did not understand some concepts - were they too 'abstract' for them - there could have been other ways of making these ideas more accessible to</p>
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	<p>them?</p> <p>Additional justification for the sample distribution would be helpful - there may have been some with a disability as well which could have been noted - outside of those with intellectual disabilities. It is noted that children with disabilities were excluded from the recruitment. This is a limitation of the study because so many children with chronic medical conditions have comorbid conditions, or neurodevelopmental issues too.</p> <p>The study is based upon a need to support 'healthcare professionals in providing care and treatment aligned with the needs of the young patients'. It would seem feasible to include something around patient education - this is integral in providing care and treatment. Also, how does this align with the healthy children who are rarely exposed to healthcare professionals?</p> <p>Children are also prone to misconceptions regarding health and illness - how does this tool assist in delineating these issues?</p> <p>At the beginning of the paper, we are told that there is limited research in this area - and in the opening statements of the discussion section, the authors indicate that there are several studies in this area. Indeed, there are several studies that examine children's perceptions of health and associated concepts. Some are predominantly on issues of physical health, while others focus on other aspects. The literature needs to be teased out and presented in a coherent manner.</p> <p>There are also several ways of using and developing tools - videos, books, apps etc. - more than ever before because of technology. To say that similar initiatives have never been done, is inaccurate. (page 5, line 13)</p> <p>Methods: the study design needs to be elaborated upon - I know there is a word limit, but it is particularly important in the context of children. The interview schedules and list of steps is helpful at the end of the article as well. Can the authors indicate when saturation was reached? This is a large sample size for qualitative research - so some details in this regard would be helpful. As indicated earlier, more details around why both chronically ill children and healthy children were chosen would be helpful. Information provided on the multidisciplinary team was helpful and provided some necessary transparency in regards to how the findings were analyzed.</p> <p>As previously noted, it is surprising that on page 8 data analysis part 2 - that the younger children had trouble understanding all-related aspects. This is noteworthy given the existing research and this becomes a issue of whether questions were asked in the best ways - using the most accessible language or terminology for young children. We know that even young children can understand complex health issues if they are presented in a way that enables them to explore and identify.</p> <p>Table 2 - the nine step process - while this process provides some rigor and replicability, it is not as fluid as most iterative processes - which is what the authors cited they would use during data collection and subsequent analysis.</p> <p>Table 3 provides a good overview of the participants - for the most part there is a good balance across gender and age.</p> <p>More information on the first part of the interview would be helpful - as these processes lay the groundwork for what comes later. The exact questions asked and the process is critical - there is some information at the end of the article under appendices, but more is needed in data collection section.</p> <p>Box 1 under findings should use quotes from the various groups and genders. The quotes are all from 12-15 year olds.</p> <p>Some of the quotes in Table 4 allude to chronically ill children feeling well - was health associated with effective treatments and medications at any time?</p> <p>Because children appeared to be confused about the terminology (page 12, line 53), why didn't the researchers identify this issue through their iterative process? Conceptual phrases could have been re-worked or represented visually perhaps?</p>
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	<p>Table 6 lays out the tool under six themes. It is still unclear as to how these categories will inform individual patient care, and what does it mean for healthy children? There are still going to be sufficient variations in these categories that are contextualized by the child's circumstances. This model also appears to mirror, to some degree, the international classification of functioning - which takes into account very similar concepts in determining the quality of life, and surrounding variables in the environment.</p> <p>Strengths and limitations - comments made under this section may be over statements - such as how the tool matches children's views of health and supports HCPs in providing care - again it is unclear how this would be applied in a practical sense. Is it possible to share an example of how this tool gets used in the real world?</p> <p>The details in Appendix C were explicit, but again, some questions arose as to why some dimensions were adequately accessed by older children and not younger ones. This speaks to a need for refinement of methods that were used with younger children.</p> <p>Overall this is an interesting paper which may validate to some degree, what we already know about children's conceptions around health. However, it remains to be seen how this tool can contribute to our work with chronically ill children and those who are 'physically' healthy.</p> <p>Thank you for providing me an opportunity to review your paper and learn about your study.</p>
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VERSION 1 – AUTHOR RESPONSE

Subject: submission revised manuscript bmjpo-2021-001373 (de Jong-Witjes et al.)

Utrecht, March 1st 2022

Dear Professor Imti Choonara,

In reply to your letter of January 31st 2022 we hereby submit the revised version of our manuscript entitled 'Development of the My Positive Health Dialogue tool for children: a qualitative study on children's views of health' (manuscript ID bmjpo-2021-001373, de Jong-Witjes et al.).

We would like to thank the reviewer for the constructive comments and suggestions to further improve our manuscript. We have revised our manuscript carefully according to these comments. The comments are addressed in detail point-by-point below and in the attached file. The comments and our responses are accompanied by the suggested manuscript revisions.

All authors have read and approved the content of this manuscript and approved its resubmission. We hope that it may now be acceptable for publication in its current form.

On behalf of all authors,
Yours sincerely,

Stacey de Jong-Witjes, Msc

Response to the reviewers comments

Reviewer #1

This is a very interesting article that describes a project that ascertained the views of healthy and chronically ill children on concepts associated with health. The framework or tool was based on one that is currently applied to adults. The need to provide a similar tool for children for the sake of clinical treatment and improvements to health is the justification provided for this empirical study.

There are several strengths in this study - predominantly that children's views were ascertained directly and that follow up was conducted with a children's council in the pediatric hospital. This supports some ethical principles in terms of follow up and member checking to some extent, although the actual participants who were interviewed were not followed up with, but rather the children's council.

Comment 1. Overall, the article would benefit from a good edit as there were some instances of poor grammar - i.e. in the abstract: 'children with a chronic condition was used'

Revision 1. The manuscript was carefully edited by a professional translator before resubmission. Please find all the changes made by this professional translator in the revised manuscript

C2. Table 1 was helpful in comparing the adult tool and how it was adapted for the children's version - I don't know whether the terms or concepts translate so clearly from one to the other - for example - meaningfulness on the adult side is translated to mean 'who am I and what do I want?' on the child side. There is a danger in assuming that derivations of an existing term can easily be translated into language that children can access. There is also a threat that a loss of initial meaning occurred.

Answer 1. The reviewer rightly states that there is a danger in assuming that terms can easily be translated into language suitable for children. For this reason, the terms were first carefully rephrased by a team of experts in the field of paediatrics. To verify meaning of these rephrased terms, part two of the interviews focussed initially on interpretation and meaning of these rephrased health dimensions and aspects. Due to the maximum word count of 2500 words, we were not able to elaborate upon this in the manuscript. In appendix C however, we explain how the researcher verified all rephrased terms, for example by asking the children what the dimensions mean to them and if the dimensions and aspects correspond with their view of health. If discrepancies occurred between the meaning of the original terms and interpretation of the rephrased terms, the interviewer clarified the meaning of dimensions to these children by using examples or the images that were used during the first part of the interviews. However, for some of the dimensions discrepancies persisted, if this was the case, the interviewer discussed these terms with the multidisciplinary team. These dimensions were then rephrased again, based on the children's responses and results of the first part of the interviews. Finally, the suggested terminology was verified by the children's council to ensure that loss of initial meaning had not occurred. This whole process is being described in appendix C.

R2. In the method and results section we have provided details on the process of translation and rephrasing of the terms, to clarify our diligence in translating these terms:

'During the first steps of the analysis, the researcher discussed the children's interpretation of the health-related dimensions and aspects, as initially proposed by the multidisciplinary team. The researcher subsequently reviewed the children's discussion of the six proposed dimensions and aspects and whether these were connected to their concept of health and why (steps 1-2).'

'But a discrepancy remained between the original meaning of these two dimensions and the children's interpretation. It appeared that children were mainly confused by the terminology, as most of the aspects of these two dimensions were frequently and spontaneously mentioned by the children, in the first part of the interviews. So, they did consider the aspects of these dimensions to be part of their concept of health. Based on these findings, the researcher discussed rephrasing of these two dimensions with the multidisciplinary research team. To prevent loss of initial meaning, several terminology modifications were suggested (steps 3-5), as presented in Table 5.'

'The rephrasing and meaning of dimensions and aspects was verified with the council. According to the children's council, all dimensions and aspects were clearly formulated and they understood the meaning of these terms.'

C3. It was later noted that the younger participants did not understand some concepts - were they too 'abstract' for them - there could have been other ways of making these ideas more accessible to them?

A3. If the younger participants did not understand the terminology or meaning of a dimension, the researcher clarified the meaning by presenting and discussing corresponding aspects. For this purpose, all health related aspects were presented on laminated cards using both words and icons. This was in line with the first part of the interview where the researcher would also use visualized health related aspects to encourage the children to motivate their responses. For example, by explaining the (initial) meaning of the dimension 'What am I and what do I want' by relating it to religion or having dreams and goals for the future. Having dreams and goals for the future then seemed to be an aspect children could

particularly relate to. Therefore, the dimension was rephrased into 'Now and in the future' to make this concept more understandable and accessible to younger children.

R3. We now discuss the specifics regarding the interview techniques and the 9-step process in the method and results section of the manuscript:

'The interviewer would present the six dimensions and corresponding aspects, which were visualised on a number of cards, and subsequently asked the following questions: 'Do you think this dimension is an element of health?' and 'Could you explain your answer?', 'What are the aspects that belong to this dimension?' and 'Are there any other aspects than the ones we showed you?'

'However, some children had difficulty understanding the two remaining dimensions of 'Who am I and what do I want' and 'What can I do and what do I do?'. Whenever this was the case, the researcher would clarify the meaning by presenting and explaining the dimension's corresponding aspects.'

C4. Additional justification for the sample distribution would be helpful - there may have been some with a disability as well which could have been noted - outside of those with intellectual disabilities.

A4. As described we aimed to achieve variation in the group of participants by recruitment from different outpatient clinics as well as healthy participants recruited through a regional Youth and Family Centre (YFC). Therefore the sample distribution is a reflection of the outpatient clinics for children with various (somatic) chronic conditions that provided us the opportunity to recruit participants.

The dialogue tool aims to help children open up about what is important to their health and well-being. In a healthcare setting, this may support professionals in providing care and treatment aligned with the needs of young patients. However, we also intended for the tool to be useful in other settings, for instance schools and public health. The aim of the tool is to generate ownership for health, which is equally important for healthy and for diseased children. That was the reason for including healthy children as well. We realize that the introduction seems to emphasize use of the dialogue tool for children and health care professionals. In our discussion we note that we included both health children and children with a chronic condition to ensure that the tool would be suitable for children in all settings by stating:

'Another strength of the MPH dialogue tool for children is its suitability for children (8–18 years) in all settings, as we included not only healthy children but also children with chronic somatic and psychiatric conditions.'

C5. It is noted that children with disabilities were excluded from the recruitment. This is a limitation of the study because so many children with chronic medical conditions have comorbid conditions, or neurodevelopmental issues too.

A5. Indeed, we excluded children with a severe intellectual disability (ID) or children who were visually handicapped. The reason for this was the use of visualized health related aspects and topics during the interviews to facilitate an open dialogue on health. A severe intellectual or visual disability would have made it difficult for these children to understand or see these aspects. In addition, sufficient verbal abilities and vision are also required to use the MPH dialogue tool in practice. However, children with a physical disability were not excluded from recruitment and some of the participants with an autism spectrum disorder also had a mild intellectual disability.

The reviewer is certainly right in stating that many children with chronic medical conditions have comorbid conditions or neurodevelopmental issues. However, creating a tool suitable for both children with a chronic condition and healthy children was a challenge in itself. Although we did not address this in the manuscript, the research team felt that children with severe ID or severe neurodevelopmental issues deserve a tool that is specifically designed to match their specific needs and wishes. Of course with proper substantiation, the MPH dialogue tool may be adapted for this specific group of patients. Incidentally a team of researchers from several institutions providing care for children and people with ID, recently developed an E-health application called 'B-appy'. The six dimensional framework was integrated in this app that was designed with and for people with mild intellectual disability (<https://e-lvb.nl/>).

R4. We have clarified in the methods section that only children with a severe ID or visual handicap were excluded:

'Children who were not fluent in Dutch were excluded, as well as those with a severe intellectual disability or who were visually handicapped.'

By elaborating on how the tool is applied in a practical sense (see R18.) the justification for this this will hopefully become clearer to the reader.

As we agree with the reviewer that this in indeed a limitation and we have added this to our discussion: 'An important limitation of the study is the exclusion of children with an intellectual disability, as many children with chronic conditions have neurodevelopmental issues, too. We believe that, with proper substantiation, the dialogue tool may be developed further, to cater to the specific needs of these children. However, this was beyond the scope of the current study.'

C6. The study is based upon a need to support 'healthcare professionals in providing care and treatment aligned with the needs of the young patients'. It would seem feasible to include something around patient education - this is integral in providing care and treatment. Also, how does this align with the healthy children who are rarely exposed to healthcare professionals?

A6. In itself the dialogue tool may be considered a form of patient education as children explore a large number of health related aspects while using the tool (see R18 concerning practical use of the dialogue tool). Our primary aim was to develop a dialogue tool to help children open up about what is important to their health and well-being. As stated, in a healthcare setting this may also support professionals in providing care and treatment aligned with the needs of young patients. However the tool is useful in other settings as well, including schools where it can be used for education on health and to help children discover what is important to them regarding their own health. With the aim of generating ownership of health.

R5. We have added to our discussion an example of another setting in which the dialogue tool can be used, relating it to health education:

'In addition, the dialogue tool can also be used in other settings, such as in schools, to educate children on health, to help them discover and discuss what is important to them regarding their health and how they can influence their own health.'

In addition we refer to revision 18, offering information on practical use of the dialogue tool. In our opinion this also demonstrates how the tool can be considered a form of health education in itself.

C7. Children are also prone to misconceptions regarding health and illness - how does this tool assist in delineating these issues?

A7. By helping children to share their own perspectives of health, parents, caretakers, teachers and health care professionals gain insight in children's conceptions regarding health and illness. With the dialogue tool they can then initiate a conversation about these conceptions, enabling delineation of these issues if necessary. We consciously use conceptions instead of misconceptions, as one may argue that considering certain ideas and views on health to be misconceptions, is an interpretation. Having a conversation about health in the broadest sense gives children the opportunity to explain their conceptions and learn about health and health related aspects.

C8. At the beginning of the paper, we are told that there is limited research in this area - and in the opening statements of the discussion section, the authors indicate that there are several studies in this area. Indeed, there are several studies that examine children's perceptions of health and associated concepts. Some are predominantly on issues of physical health, while others focus on other aspects. The literature needs to be teased out and presented in a coherent manner.

A8. In our abstract we state that 'children's views of health are a relatively under investigated topic'. And in comparison to other research topics, we do believe this to be true. However we do feel the reviewer's feedback on our presentation of available literature on this subject is justified.

R6. We have teased out the literature and rewritten the first part of our discussion. We now first present earlier studies and findings in light of our main results, i.e. the two central themes. Subsequently we briefly reflect on the fact that most of those studies are based on the views of healthy children and what current research tells us about the perspectives of children with chronic conditions on participation - which is one of the two central themes we identified. We then consider the other health related aspects that we found in our study and how those findings relate to results from previous studies:

'Most studies about children's views on health were performed in the 1970s, 1980s and 1990s. The central themes regarding children's views on health that were identified in our study match the results

from these early studies. In 1978, Natapoff et al. concluded that 6 to 12 year-old children view health as a positive attribute, which enables them to participate in desired activities.(8) In 1985, Altman et al. interviewed children from 8 to 14 years old about the concepts of health and illness. These children also defined health as feeling good or being in good physical or mental health.(13) In 1991, Logsdon et al. examined preschool children's conception of health as a positive feeling and the ability to participate in desired activities.(11) More recently, a study from Almqvist et al. showed that children largely related health to being engaged in and able to perform wanted activities and participate in a supportive everyday context.(14) However, none of these studies addressed the views and perspectives of children with a chronic condition. However, a more recent study did specifically assess the perspective of children with chronic conditions on participation.(10) It was discovered that these children considered participation as more than merely engaging in activities and identified other key elements to full participation, such as having a sense of belonging, the ability to socially interact and the capacity to keep up with peers. Some of these aspects were also identified in our study with both healthy children and children with a chronic condition, such as the sense of belonging and the importance of social interactions with friends and family. In addition, our study also showed children focused on health practices as part of health, which were categorised as 'lifestyle'. Children mentioned good nutrition and sports as strategies to achieve health. Previous studies on children's perception of health also concluded food and exercise are important subjects to children.(8,9,13,15) More recently, Piko et al. interviewed 128 primary school students to describe their views on health, illness, health promotion and disease prevention, and found that these children expressed both a biomedical and holistic concept of health.(16) Within this holistic health concept, children related health to aspects similar to the ones we identified, such as happiness and joy.'

With this major revision, we feel we have reflected on the literature in a more coherent manner, as the reviewer suggested.

C9. There are also several ways of using and developing tools - videos, books, apps etc. - more than ever before because of technology. To say that similar initiatives have never been done, is inaccurate. (page 5, line 13)

A9. This statement indeed deserves some nuance. As we explain earlier in our introduction, similar interventions have been developed before, but usually with a focus on a specific group of patients. Therefore we aimed to develop a more generic tool, to enable a dialogue on health with children, as a way to align with their views and perceptions.

R7. We have revised this part of the manuscript in such a way that the substantiation for this study is still evident, without giving the reader the impression that similar initiatives have never been done: Interventions aimed at understanding and aligning with their views on health are essential to improve their health and self-management capabilities. For this reason, we developed an age-appropriate MPH dialogue tool that matches the views of both healthy children and children with a chronic condition, to be used in various settings.

C10. Methods: the study design needs to be elaborated upon - I know there is a word limit, but it is particularly important in the context of children. The interview schedules and list of steps is helpful at the end of the article as well. Can the authors indicate when saturation was reached? This is a large sample size for qualitative research - so some details in this regard would be helpful.

A10. Due to the word limit, we were not able to elaborate on this. In our methods section 'Data analysis - part 1' we explain how the two junior researchers individually read the transcripts and identified preliminary codes and subsequently discussed their initial findings with three senior researchers, developing the preliminary coding tree. This is in fact a summary of our iterative process, as the junior researchers would meet with the senior researchers weekly to discuss new findings and determine the direction for the next set of interviews. After two months, there was an interim evaluation with the entire research team.

As the reviewer states, this is a relatively large sample size, presumably because children were invited to discuss health in the broadest sense. Oftentimes children would mention new health related aspects, these would then be discussed during the weekly meeting to determine which aspects needed to be investigated further. As mentioned in our manuscript, saturation was reached no more new health related aspects or insights appeared from the interviews.

R8. We have added information to our methods section to provide details on the study design and the iterative analysis process:

'They discussed their initial findings on a weekly basis with three senior researchers (EvdP, SLN and MCK), and jointly determined the content for the next set of interviews and developed the preliminary coding tree. During an interim evaluation with the entire multidisciplinary research team, the findings were discussed and checked against transcripts. Coding discrepancies were resolved, consensus about the identified themes and sub-themes was achieved, and the coding tree was adapted accordingly. Coding and meaning saturation were achieved when no more new topics, nuances or insights appeared from the interviews.'

C11. As indicated earlier, more details around why both chronically ill children and healthy children were chosen would be helpful.

A11. Please also see A4 and A6 in which we explain how this study and our findings align with healthy children who are rarely exposed to healthcare professionals. We intended for the dialogue tool to be used in settings other than healthcare. Therefore, it was important to explore views of both children with a chronic condition and healthy children.

Both R5 and R7 address our aim of developing a tool useful for different settings, highlighting the reason for this.

Information provided on the multidisciplinary team was helpful and provided some necessary transparency in regards to how the findings were analyzed.

C12. As previously noted, it is surprising that on page 8 data analysis part 2 - that the younger children had trouble understanding all-related aspects. This is noteworthy given the existing research and this becomes a issue of whether questions were asked in the best ways - using the most accessible language or terminology for young children. We know that even young children can understand complex health issues if they are presented in a way that enables them to explore and identify.

A12. Please also see A3 where we discuss in detail how the interviewers handled this and how we ensured that the final terminology was understandable for all children.

C13. Table 2 - the nine step process - while this process provides some rigor and replicability, it is not as fluid as most iterative processes - which is what the authors cited they would use during data collection and subsequent analysis.

A13. The reviewer is right in stating that this is not a standard iterative process. By citing we would use an iterative process we have perhaps created confusion. During the first part of our data collection and analysis, we did use an iterative process. However, the final steps of developing the dialogue tool, may be better described as a co-design process.

R9. We have revised part of our abstract and methods section to avoid confusion on our research design with regards to the use of iterative processes:

'A qualitative research design was used as part of a co-design process.'

Table 3 provides a good overview of the participants - for the most part there is a good balance across gender and age.

C14. More information on the first part of the interview would be helpful - as these processes lay the groundwork for what comes later. The exact questions asked and the process is critical - there is some information at the end of the article under appendices, but more is needed in data collection section.

R10. We have added examples of the questions that were asked in the first part of the interview in our methods sections:

'During this dialogue, the researchers asked open-ended questions ('What does health mean to you?') and encouraged the respondents to motivate their responses to a number of visualised topics (e.g. by showing a picture of the King of the Netherlands and asking: 'Do you think he is healthy?' and 'why/why not?').'

C15. Box 1 under findings should use quotes from the various groups and genders. The quotes are all from 12-15 year olds.

R11. We have added quotes from 8-11 year olds to both Box 1 and Table 4.

C16. Some of the quotes in Table 4 allude to chronically ill children feeling well - was health associated with effective treatments and medications at any time?

A16. Yes, we presume it was indirectly associated with effective treatment. Children with chronic conditions frequently discussed this in relation to experiencing physical complaints (or not). Reasoning that if they do not suffer from their illness they feel healthy, as some of the quotes in Table 4 illustrate. Despite the fact that not experiencing physical complaints is likely the result of effective treatment, children did not mention or discuss this association spontaneously during the interviews.

C17. Because children appeared to be confused about the terminology (page 12, line 53), why didn't the researchers identify this issue through their iterative process? Conceptual phrases could have been re-worked or represented visually perhaps?

A17. The word limit did not allow us to elaborate on this but this was identified during the first interviews and as discussed earlier the researchers used visualized aspects to explain conceptual phrases to children who appeared to be confused about the terminology (also see A3). However, rephrasing and defining of dimensions and corresponding aspects was part of the 9-step co-design development process. Therefore, conceptual phrases were rephrased after all children had been interviewed so the research team could take into account how many children had difficulty in understanding the originally proposed terminology. In addition, when the phrases and terms of dimensions and aspects were explained to these children, they would often provide the researchers with new insights on their perspectives of these health related aspects. These insights helped to rephrase and redefine the dimensions and aspects in a way that would match the children's perspectives. Specific examples are described in detail in Appendix C. In our opinion, R2 and R3 address this issue sufficiently.

C18. Table 6 lays out the tool under six themes. It is still unclear as to how these categories will inform individual patient care, and what does it mean for healthy children? There are still going to be sufficient variations in these categories that are contextualized by the child's circumstances. This model also appears to mirror, to some degree, the international classification of functioning - which takes into account very similar concepts in determining the quality of life, and surrounding variables in the environment.

A18. It is indeed true that there are going to be sufficient variations in these categories, depending on the child's circumstances. In our opinion, this substantiates the need for a dialogue tool that helps to initiate a different kind of conversation, with a focus on the child's personal circumstances related to their health in the broadest sense. This way, it may promote awareness in children, about how circumstances are related to health. In addition, it is not always easy for children to discuss their personal circumstances and the MPH-dialogue tool supports them in this as it specifically addresses all aspects important to their health and the context associated with health.

C19. Strengths and limitations - comments made under this section may be over statements - such as how the tool matches children's views of health and supports HCPs in providing care - again it is unclear how this would be applied in a practical sense. Is it possible to share an example of how this tool gets used in the real world?

A19. In practice, the dialogue tool first and foremost serves to help children reflect on their health by answering questions related to the 39 health related aspects in a web based app. The results are then presented in a spider web chart, providing an overview of the child's current health status with regards to the six dimensions. Children can then use the spider web chart to guide a dialogue on their health, with HCP's or other caregivers.

R12. To provide more insight in how the tool supports both children and HCP's, we provided details on how the tool is used in practice in our results section:

'For practical use, all 39 aspects were converted to questions that will help children reflect on their health. Using the tool is a two-step process; after answering the 39 questions in a web-based app, an overview of the child's current health status is presented in a spider web chart. Children can then use the spider web chart to guide them in a dialogue on their health.'

C20. The details in Appendix C were explicit, but again, some questions arose as to why some dimensions were adequately accessed by older children and not younger ones. This speaks to a need for refinement of methods that were used with younger children.

A20. Please see A3 and A16 where we addressed this issue.

C21. Overall this is an interesting paper which may validate to some degree, what we already know about children's conceptions around health. However, it remains to be seen how this tool can contribute to our work with chronically ill children and those who are 'physically' healthy.

Thank you for providing me an opportunity to review your paper and learn about your study.

A21. We would like to thank the reviewer for her useful comments and suggestions which have hopefully led to an improvement of our manuscript.

VERSION 2 – REVIEW

REVIEWER	Reviewer name: Institution and Country: Competing interests:
REVIEW RETURNED	

GENERAL COMMENTS	
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REVIEW RETURNED	

GENERAL COMMENTS	
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GENERAL COMMENTS	
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VERSION 2 – AUTHOR RESPONSE

VERSION 3 – REVIEW

REVIEWER	Reviewer name: Institution and Country: Competing interests:
REVIEW RETURNED	

GENERAL COMMENTS	
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GENERAL COMMENTS	
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VERSION 3 – AUTHOR RESPONSE