

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)	Living Labs for Patient-Engagement and Knowledge Exchange: An Exploratory Sequential Mixed Methods Study to Develop a Living Lab in Pediatric Rehabilitation
AUTHORS	Archibald, Mandy; Wittmeier, Kristy; Gale, Matthew; Ricci, Florencia; Russell, Kelly; Woodgate, Roberta

VERSION 1 – REVIEW

REVIEWER	Chantal Camden Université de Sherbrooke, Canada
REVIEW RETURNED	10-Sep-2020

GENERAL COMMENTS	<p>Thank you so much for the opportunity to review this manuscript. I am thrilled to know that such a project is currently running. This study could greatly inform how we shape 'spaces and environments' to really foster public involvement in pediatric rehabilitation. The manuscript is generally well written, and clearly explain why such a project is needed. I do have minor modifications, mostly to provide greater aspects of the methods, or ease the reading.</p> <p>Title : I like the first part of the title (i.e. Living Labs for Patient-Engagement and Knowledge Exchange) but I wonder how easily understandable it would be for most reader to talk about a 'Prototype Development' in the title...?</p> <p>Abstract: I would recommend defining briefly what a living lab is, and what authors mean by prototype. I am mindful of wordcounts, but would also like to know how youths will be recruited and what are the inclusion criteria (youths with disabilities?). It might also be interesting to state what will be the aim of the art-based data collection (generate features/characteristics of the living lab?). Remove caps (here and elsewhere?) for Interpretative Description?</p> <p>Introduction. The introduction is well-written, very informative, and introduce nicely the objectives. I like how the authors described the theory underpinning living lab, and the key elements. I am familiar with some examples of living labs for adults (e.g. in shopping mall) but none specific for pediatric rehabilitation. I wonder if someone never having heard of living lab would clearly understand what we mean by living lab, and if using some concrete examples of living lab used with other population could help.</p> <p>Objectives. I wonder if the objectives could be frame more clearly, to identify who we are talking about by 'youths with developmental differences'. I also wonder if the goal is really to identify KT priorities (it seems to me that it is more to develop the living lab prototype),</p>
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	<p>and if 'cross-sectional' shouldn't be removed from the objectives.</p> <p>Methods. Design, setting and are very clearly written. For the population, it is still unclear to me exactly who are the youths served by this Centre (children with developmental delays? With rehabilitation needs – but could you give examples?). Is there some inclusion/exclusion criteria (e.g. a youth that goes only once to this Centre, would he be eligible?).</p> <p>I really enjoyed reading the description of the draw-write-tell with youth/sibling, and especially the examples of questions. I am however not sure how the approach will be used with adults, and I still struggle to understand concretely the data collection structure. I would like to have examples of questions, what will be tell/ask to participants. I am unclear if we will ask parents what should be the research priorities? Likewise, with children, at the end of the section, when authors say that children will be asked questions relating to the 4 objectives, I would like to have example of questions (and here, it will be only verbal questions?)</p> <p>Could the authors describe more specifically what the questions will be for the e-survey, and how it will build on Phase 1. Authors mention: "Questions will be asked regarding preferences in receiving and exchanging information; learning methods pertaining to coping, support, communicating, connecting, and relationships for example; and how participants' experiences could be shared, translated and disseminated" – but will these questions be asked to participants in Phase 1 (and if not, how will phase 2 build on phase 1?) Should limitations be identified?</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Chantal Camden, Université de Sherbrooke

Comments to the Author:

Thank you so much for the opportunity to review this manuscript. I am thrilled to know that such a project is currently running. This study could greatly inform how we shape 'spaces and environments' to really foster public involvement in pediatric rehabilitation. The manuscript is generally well written, and clearly explain why such a project is needed. I do have minor modifications, mostly to provide greater aspects of the methods, or ease the reading.

Response: Thank you for your comments and detailed review of the manuscript.

Title : I like the first part of the title (i.e. Living Labs for Patient-Engagement and Knowledge Exchange) but I wonder how easily understandable it would be for most reader to talk about a 'Prototype Development' in the title...?

Response: We agree that this is somewhat cumbersome. Perhaps the following revision is more palatable: "Living Labs for Patient-Engagement and Knowledge Exchange: An Exploratory Sequential Mixed Methods Study to Develop a Living Lab in Pediatric Rehabilitation". We then clarify that this is a prototype in the manuscript, and are clear by what we mean by prototype as you have requested.

Abstract: I would recommend defining briefly what a living lab is, and what authors mean by prototype. I am mindful of wordcounts, but would also like to know how youths will be recruited and what are the inclusion criteria (youths with disabilities?). It might also be interesting to state what will be the aim of the art-based data collection (generate features/characteristics of the living lab?).

Remove caps (here and elsewhere?) for Interpretative Description?

Response: We have now provided a few words indicating what a living lab “is” in the abstract, a general statement of recruitment and inclusion (inclusive of youth with disabilities), and the aim of the arts-based data collection. Interpretive Description is no longer capitalized throughout.

Introduction. The introduction is well-written, very informative, and introduce nicely the objectives. I like how the authors described the theory underpinning living lab, and the key elements. I am familiar with some examples of living labs for adults (e.g. in shopping mall) but none specific for pediatric rehabilitation. I wonder if someone never having heard of living lab would clearly understand what we mean by living lab, and if using some concrete examples of living lab used with other population could help.

Response: Thank you for your suggestion. We have included a few examples of the diverse uses of living labs to help concertize this idea more clearly for readers. These examples are located on page 5 (para 3, under the heading “Living Labs)

Objectives. I wonder if the objectives could be frame more clearly, to identify who we are talking about by ‘youths with developmental differences’. I also wonder if the goal is really to identify KT priorities (it seems to me that it is more to develop the living lab prototype), and if ‘cross-sectional’ shouldn’t be removed from the objectives.

Response: We have included an additional description under the “participants” heading which indicates that any youth, sibling or parent/guardian accessing the centre is eligible, and the justification for this broad inclusion. The facility serves a range of rehabilitation needs and developmental support needs reflecting numerous diagnosis (and at times for youth where no diagnosis exists). We have indicated this. We have removed “cross section” as suggested. The development of the lab infrastructure and the capacity of the lab to support KT / knowledge exchange are inextricably linked in our case, and we are indeed seeking input into KT priorities, however, we at times emphasize the priority methods by which this knowledge exchange might occur and are seeking general domains of learning needs (as examples) rather than nuanced specifics as might be generated through other means (e.g., Delphi technique). We have specified this to provide additional clarity.

Methods. Design, setting and are very clearly written. For the population, it is still unclear to me exactly who are the youths served by this Centre (children with developmental delays? With rehabilitation needs – but could you give examples?). Is there some inclusion/exclusion criteria (e.g. a youth that goes only once to this Centre, would he be eligible?).

Response: I have attended to this under the participants heading. The facility serves a range of youth and we are using an inclusive recruitment approach (all attending youth are eligible) to enable robust inclusion and support lab utility for a number of individuals.

I really enjoyed reading the description of the draw-write-tell with youth/sibling, and especially the examples of questions. I am however not sure how the approach will be used with adults, and I still struggle to understand concretely the data collection structure. I would like to have examples of questions, what will be tell/ask to participants. I am unclear if we will ask parents what should be the research priorities? Likewise, with children, at the end of the section, when authors say that children will be asked questions relating to the 4 objectives, I would like to have example of questions (and here, it will be only verbal questions?)

Response: Thank you for your comment. To clarify, the draw-write-tell will not be used with adults (it is a youth centric method); we have clarified this under “data collection, stage 1”. We now provide numerous examples of the questions to provide this clarity. We have clarified that we are interested in how families would like to be involved, and what their general involvement could revolve around (E.g., sharing experiences to better inform family-centered care using a particular approach like storytelling). We believe that these changes add clarify to this section and appreciate the suggestions to do so.

Could the authors describe more specifically what the questions will be for the e-survey, and how it will build on Phase 1. Authors mention: “Questions will be asked regarding preferences in receiving and exchanging information; learning methods pertaining to coping, support, communicating, connecting, and relationships for example; and how participants’ experiences could be shared, translated and disseminated” – but will these questions be asked to participants in Phase 1 (and if not, how will phase 2 builds on phase 1?)

Response: I appreciate your query and this is certainly always a challenge when we are sequentially building upon data not yet collected. However, since the study is now in progress, I am better able to provide more of this information. I have provided a couple specific examples of the e-survey questions as requested, and have indicated more clearly how stage 2 builds upon stage 1.

Should limitations be identified?

Response: We have now included a summary of limitations after the discussion section.

VERSION 2 – REVIEW

REVIEWER	Chantal Camden Université de Sherbrooke, Canada
REVIEW RETURNED	01-Apr-2021

GENERAL COMMENTS	<p>I want to congratulate the authors for the changes they made to the manuscript. I think it is easier for the reader to understand the scope of their project and what a living lab is. I only have minor typos that I suggest fixing before publication, and some comments to perhaps consider:</p> <p>P7 line 27; a parenthesis is missing after frequency</p> <p>Although I appreciate the examples of questions provided on page 10, I wonder if some need to be reviewed for greater clarity, e.g. ‘how important is it to you that you contribute to Other families’?</p> <p>P10. Is fracturing of data the correct expression?</p> <p>Even if I do understand why authors choose to present the stages as they did, it seems a little bit strange to have a Stage 3 data analysis section – but not stage 3 data collection. I wonder if this sentence should be move into the data collection section : “ We will host a ó day workshop with PAG and research team members, and offer an open engagement event to attain additional input into the living lab, congruent with the co-design principles (e.g., technological infrastructure, multi-method</p>
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	approaches).14,17
	Some characters in the acknowledgement section are different.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1
Dr. Chantal Camden, Universite de Sherbrooke

Comments to the Author:

I want to congratulate the authors for the changes they made to the manuscript. I think it is easier for the reader to understand the scope of their project and what a living lab is. I only have minor typos that I suggest fixing before publication

Response: *Thank you for taking the time to re review our work.*

Comment: P7 line 27; a parenthesis is missing after frequency

Response: *Parenthesis added*

Comment: Although I appreciate the examples of questions provided on page 10, I wonder if some need to be reviewed for greater clarify, e.g. ‘how important is it to you that you contribute to Other families’?

Response: *This section has been reworded for clarity as suggested.*

Comment: P10. Is fracturing of data the correct expression?

Response: *Upon reflection, we think “holistic handling of data” is more accurate in this case. Thank you.*

Comment: Even if I do understand why authors choose to present the stages as they did, it seems a little bit strange to have a Stage 3 data analysis section – but not stage 3 data collection. I wonder if this sentence should be move into the data collection section : “We will host a 6 day workshop with PAG and research team members, and offer an open engagement event to attain additional input into the living lab, congruent with the co-design principles (e.g., technological infrastructure, multi-method approaches).14,17

Response: *Thank you for this comment. We think the clearest solution is to provide a new heading above stage 3 entitled “Prototype Engagement Workshop”. I believe this works well since the workshop will occur after the stage 2 analysis, so it is likely best to present it this way in the manuscript.*

Comment: Some characters in the acknowledgement section are different.

Response: *Inconsistencies between RW/RLW and KW/ KDW were rectified. Thank you. CC and SW warrant acknowledgement but not authorship.*

VERSION 3 – REVIEW

REVIEWER	Chantal Camden Université de Sherbrooke, Canada
REVIEW RETURNED	15-Apr-2021
GENERAL COMMENTS	I had already suggested accepting this manuscript, and only minor edits were suggested.