## 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)	Transition in Acquired Brain Injury Youth (TrABI-Y): A Systematic Literature Review Protocol.
AUTHORS	Gauvin-Lepage, Jérôme; Farthing, Julie; Bissonnette, Shana; Koclas, Louise; Jaworski, Magdalena; Larochelle, Josée; St- Pierre-Clément, Anne-Sophie

### **VERSION 1 – REVIEW**

REVIEWER	David Hailey
	University of Wollongong
	Australia
REVIEW RETURNED	27-Feb-2019

The standard of the written English is reasonable but a number of corrections and changes would be needed for the manuscript to be acceptable for publication. For example, the introduction to the abstract includes a lengthy sentence that would be better split and presented with more considered wording.  Page 4. At the end of the entry on methods and analysis reference might be made to identified strengths and gaps as well as consistency and discrepancies.  Lines 46-47 The wording suggests that the study will propose 'innovative and integrated solutions'. That would be overly ambitious and is not consistent with the wording in the final section of the protocol.  Page 5. The introduction cites some relevant publications related to transition services for ABI persons, though some of these are not very recent. Reference 8, which is a short abstract, seems not to comment on the matters referred to on lines 33-34.  Page 6. Line 5. Given the age groups to be covered inclusion of "infant" as a search term seems unnecessary.  Lines 13ff Are there any exclusion criteria?  44ff Use of MMAT is appropriate for study quality assessment. Some of the details provided on this well-known checklist seem unnecessary.  Page 7. Lines 9-12. This sentence would be clearer if it were shortened and specified that the criteria referred to are those provided in MMAT for each type of study.  Lines 15 -19 Very little is provided on data synthesis. Reference is made to consistency and discrepancies between studies but not to the 'strengths and gaps' that will have been identified or types of care and life events. Also missing are details on who is to perform the synthesis; whether the different study designs are to be be dealt with separately; or how the quality data from the MMAT scores are to be used.  The final section, Ethics and Dissemination, deals with dissemination the first sentence. The remainder does not deal with dissemination

of findings but is taken up with expectations and assumptions on
how the findings from the review will be received and used.
There is no information on the proposed date of the study

REVIEWER	Lambert Felix University of Portsmouth UK
REVIEW RETURNED	07-Mar-2019

## GENERAL COMMENTS

- 1. The research question and the objectives does not suggest that the protocol is for a systematic review. If the authors are intending to undertake a scoping review then the current objective is acceptable.
- 2. Introduction: It would be useful for the readers to get more information about the burden of ABI, and get some context about how they are managed or the standard practice including variation across regions. Please refer to item 6 of PRISMA –P.
- 3. Inclusion/Exclusion criteria: Please expand this section using the PICOS framework. Consider providing examples of interventions / strategies that would meet the criteria.
- 4. Inclusion/Exclusion criteria: Although it is not recommended to use outcome to exclude a study please specify primary outcomes and potential secondary outcomes that is likely to be included. Please refer to item 13 of PRISMA –P.
- 5. Search strategy: Please include the search strategies for at least one database.
- 6. Information source: It is reported that grey literature will be searched but the authors do not specify the resources that will be searched.
- 7. Please provide justification as to why records before 2000 will not be considered.
- 8. Selection of articles: How do the authors intend to summarise the selection process? Will they use the PRISMA flow chart?
- 9. Specify explicitly data management strategies such as whether any reference database will be used for screening? Please refer to item 11a of PRISMA P
- 10. Data extraction: Data will be extracted from definitely included studies and not from potentially eligible studies. Will the data extraction form be pilot tested?
- 11. Data synthesis: This section needs more details as to how the data will be organised, whether any framework will be used to inform the synthesis process, refer to item 15d of PRISMA –P. 12. Section on confidence in cumulative evidence is missing.
- CERQual (https://www.cerqual.org/) can be used to assess the quality of evidence from reviews of qualitative studies.

# **VERSION 1 – AUTHOR RESPONSE**

	Reviewer 1		
	The standard of the written English is reasonable		
	but a number of corrections and changes would be		
	needed for the manuscript to be acceptable for		
1	publication. For example, the introduction to the	We have reworded these	
	abstract includes a lengthy sentence that would be	sentences in the Abstract section.	
	better split and presented with more considered		
	wording.		
	Page 4. At the end of the entry on methods and	We have added this specification	
2	analysis reference might be made to identified	in the Abstract, as well as under	
	strengths and gaps as well as consistency and discrepancies.	the Data Synthesis sub-heading.	
	Lines 46-47. The wording suggests that the study		
	will propose 'innovative and integrated solutions'.		
3	That would be overly ambitious and is not	We have reworded theses	
	consistent with the wording in the final section of	sentences.	
	the protocol.		
	Page 5. The introduction cites some relevant	We have updated reference 1.	
	publications related to transition services for ABI	Regarding reference 2, this is a position paper and statements	
4	persons, though some of these are not very recent. Reference 8,	from the Society for	
	Reference o,	Adolescent Medicine on	
	which is a short shotter to see a set to see a set to	transition, and	
	which is a short abstract, seems not to comment on		
	the matters referred to on lines 33-34.	(2003) available in the literature.  Reference 8 was a mistake and it	
		was modified.	
	Page 6. Line 5. Given the age groups to be covered		
5	inclusion of "infant" as a search term seems	The search term "Infant" was	
	unnecessary.	deleted.	
6	Lines 13. Are there any exclusion criteria?	Inclusion and exclusion criteria	
	·	were added.	
	Use of MMAT is appropriate for study quality		
7	assessment. Some of the details provided on this well-known checklist seem unnecessary.	We have deleted two sentences.	
	•		
	Page 7. Lines 9-12. This sentence would be		
8	clearer if it were shortened and specified that the	We have reworded this sentence.	
	criteria referred to are those provided in MMAT for		
	each type of study.		

9	Lines 15 -19. Very little is provided on data synthesis. Reference is made to consistency and discrepancies between studies but not to the 'strengths and gaps' that will have been identified or types of care and life events. Also missing are details on who is to perform the synthesis; whether the different study designs are to be dealt with separately; or how the quality data from the MMAT scores are to be used.	We have added information, as well as specification.
10	The final section, Ethics and Dissemination, deals with ethics in the first sentence. The remainder does not deal with dissemination of findings but is taken up with expectations and assumptions on how the findings from the review will be received and used.	Details regarding results dissemination were added.
11	There is no information on the proposed date of the	This information was added (also
	study.	as per Editorial Requests).
	Reviewer 2	
1	The research question and the objectives do not suggest that the protocol is for a systematic review. If the authors are intending to undertake a scoping review then the current objective is acceptable.	This comment is confusing us, because we did not formulate research question and/or objectives. Indeed, as per the aim of the study, this manuscript is about a systematic review protocol, not a scoping review.
2	Introduction: It would be useful for the readers to get more information about the burden of ABI and get some context about how they are managed or the standard practice including variation across regions.  Please refer to item 6 of PRISMA –P.	Details were added in the introduction section of the manuscript.
3	Inclusion/Exclusion criteria: Please expand this section using the PICOS framework. Consider providing examples of interventions / strategies that would meet the criteria.	A PICO framework was developed and added to the paper, in the Methods and Analysis section.

4	Inclusion/Exclusion criteria: Although it is not recommended to use outcome to exclude a study please specify primary outcomes and potential secondary outcomes that is likely to be included.  Please refer to item 13 of PRISMA –P.	We have added information.
5	Search strategy: Please include the search strategies for at least one database.	Search strategy used in MEDLINE have been uploaded as an additional file (also as per Editorial Requests).
6	Information source: It is reported that grey literature will be searched but the authors do not specify the resources that will be searched.	
7	Please provide justification as to why records before 2000 will not be considered.	We have added justification in the manuscript regarding this comment.
8	Selection of articles: How do the authors intend to summarize the selection process? Will they use the PRISMA flow chart?	As per systematic review's guidelines, we will use the PRISMA flow chart.
9	Specify explicitly data management strategies such as whether any reference database will be used for screening? Please refer to item 11a of PRISMA – P.	Details regarding data management strategies were added in the manuscript.
10	Data extraction: Data will be extracted from definitely included studies and not from potentially eligible studies. Will the data extraction form be pilot tested?	We have corrected this
11	Data synthesis: This section needs more details as to how the data will be organized, whether any framework will be used to inform the synthesis process, refer to item 15d of PRISMA –P.	We have added more details in this section.
12	Section on confidence in cumulative evidence is missing. CERQual (https://www.cerqual.org/) can be used to assess the quality of evidence from reviews of qualitative studies.	We are conducting a systematic literature review of original papers. Indeed, we are excluding actual reviews (we are not doing an umbrella reviews).

- recruitment to and conduct of the study?
- How will the results be disseminated to study participants?
- For randomized controlled trials, was the burden of the intervention assessed by patients themselves?
- Patient advisers should also be thanked in the contributorship statement/acknowledgements.
- If patients and or public were not involved please state this.

### **VERSION 2 – REVIEW**

REVIEWER	David Hailey
	University of Wollongong, Australia
REVIEW RETURNED	29-Apr-2019

KEVIEW KEI OKKED	23-Api-2013
GENERAL COMMENTS	The standard of the written English is reasonable but a number of corrections and changes would be needed.  Page 3.
	2) In the introduction to the abstract reference could be made to cerebral palsy and Down syndrome if the study is to focus on transitions for persons with those conditions, as indicated later in the manuscript.  Page 4,
	3) 40-42 The last sentence in the paragraph seems out of place, suggest delete. Page 5,
	4) 15 The search terms include brain injury and neurotrauma, but in the following paragraph (30-31) it is said that studies concerning persons who had these conditions will be excluded. Modification appears necessary.
	5) 26-55 Presentation would be greatly improved if the inclusion and exclusion criteria were clearly separated from each other in the text.
	6) 28-29 Confirm/ clarify whether the conditions considered will be limited to cerebral palsy and Down syndrome.
	7) 37-38 Reference to studies that did not evaluate an intervention appears contrary to what is said in the following paragraph and in the information on the PICO framework.  Page 6,
	8) 3-5 Surely some information is required under Comparison to take account of those selected studies that were comparative. Additional words could deal with those non-comparative studies that are included.
	9) 6 Examples of expected types of outcome would be helpful 10) 35-43 There seems no need to provide all these details on MMAT which is a well known and accepted tool. Lines 40-43 essentially duplicate what has been said at the start of the paragraph.

11) 54-55 and Page 7, 3-4. This just repeats what has been said under Quality Assessment. The synthesis will need to deal with material from a broadly- based literature search. More detail is needed to indicate how data synthesis will be undertaken.  12) 12-27 Most of this final paragraph is about projected contribution and influence of the review, rather than dissemination. Suggest removal of these expectations and inclusion of practicalities of the dissemination process.

REVIEWER	Lambert Felix
	University of Porstmouth United Kingdom
REVIEW RETURNED	07-May-2019

## **GENERAL COMMENTS**

Thank you for addressing most of my comments.

Please find below further comments:

Abstract: Methods and analysis - page 3 of 22, line 18 - Please describe the inclusion criteria in terms of the PICOS framework. Currently only study design is reported.

line 26 - Please consider using standard terms such as 'appraised' instead of 'reviewed.'

Study objective: Although the authors do not explicitly state research questions or objective, my interpretation of line 43 (page 4 of 22), 'The purpose of this paper....' is the objective of the protocol. I would suggest elaborating the texts based on point 7 of PRISMA- P: Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO).

Outcomes: Please provide some examples of outcomes to line 5-6 (page 6 of 22).

References: Please follow the BMJ Format for references - BMJ reference style (https://authors.bmj.com/writing-and-formatting/formatting-your-paper/)

List the names and initials of all authors if there are 3 or fewer; otherwise list the first 3 and add 'et al.

## Action not required:

Response, number 12 (Reviewer 2): CERQual is used to assess how much confidence to place in individual review findings from qualitative evidence syntheses. This indeed includes systematic review of original papers consisting of qualitative studies. However, as the plan for this review to undertake a narrative synthesis CERQual may not be applicable.

#### **VERSION 2 – AUTHOR RESPONSE**

### Reviewer 1

1

The standard of the written English is reasonable, but a number of corrections and changes would be needed.

The protocol was revised by a professional English translator.

2

Page 3. In the introduction to the abstract reference could be made to cerebral palsy and Down syndrome if the study is to focus on transitions for persons with those conditions, as indicated later in the manuscript.

A definition of ABI and examples of neurological conditions were added in the introduction part of the abstract, such as cerebral palsy and Down syndrome.

3

Page 4, 40-42 The last sentence in the paragraph seems out of place, suggest delete. This sentence was deleted.

4

Page 5, 15 The search terms include brain injury and neurotrauma, but in the following paragraph (30-31) it is said that studies concerning persons who had these conditions will be excluded. Modification appears necessary.

The list of search terms was corrected to be coherent with the Inclusion/Exclusion Criteria paragraph.

5

26-55, Presentation would be greatly improved if the inclusion and exclusion criteria were clearly separated from each other in the text. The inclusion and exclusion criteria and PICO Framework were separated in the text.

6

28-29 Confirm/clarify whether the conditions considered will be limited to cerebral palsy and Down syndrome.

The conditions will not be limited to cerebral palsy and Down syndrome and this was clarified in the manuscript.

7

37-38 Reference to studies that did not evaluate an intervention appears contrary to what is said in the following paragraph and in the information on the PICO framework.

Inclusion and exclusion criteria regarding intervention were clarified as well as in the PICO Framework.

8

Page 6, 3-5 Surely some information is required under Comparison to take account of those selected studies that were comparative. Additional words could deal with those non-comparative studies that are included.

Precisions were added under the Comparator / Control of the PICO framework.

9

6 Examples of expected types of outcome would be helpful Expected types of outcomes were included.

10

35-43 There seems no need to provide all these details on MMAT which is a well known and accepted tool. Lines 40-43 essentially duplicate what has been said at the start of the paragraph. This paragraph was revised and shortened to only include pertinent information regarding the MMAT.

11

54-55 and Page 7, 3-4. This just repeats what has been said under Quality Assessment. The synthesis will need to deal with material from a broadly- based literature search. More detail is needed to indicate how data synthesis will be undertaken.

The Data Synthesis paragraph was revised to summarize the information on the MMAT.

12

12-27 Most of this final paragraph is about projected contribution and influence of the review, rather than dissemination. Suggest removal of these expectations and inclusion of practicalities of the dissemination process.

Only information regarding the dissemination plan was kept in the "Ethics and Dissemination" paragraph.

#### Reviewer 2

1

Abstract: Methods and analysis - page 3 of 22, line 18 - Please describe the inclusion criteria in terms of the PICOS framework. Currently only study design is reported.

The inclusion criteria were described according to the PICO framework in the abstract - methods and analysis paragraph.

2

line 26 - Please consider using standard terms such as 'appraised' instead of 'reviewed.' This was corrected on line 26, as well as in the entire manuscript.

3

Study objective: Although the authors do not explicitly state research questions or objective, my interpretation of line 43 (page 4 of 22), 'The purpose of this paper....' is the objective of the protocol. I would suggest elaborating the texts based on point 7 of PRISMA- P: Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO).

Research questions were added to respect point 7 of PRISMA-P guidelines.

4

Outcomes: Please provide some examples of outcomes to line 5-6 (page 6 of 22). Expected types of outcomes were included.

## **VERSION 3 – REVIEW**

VERSION 3 – REVIEW	
REVIEWER	David Hailey University of Wollongong Australia
REVIEW RETURNED	26-Jun-2019
GENERAL COMMENTS	The presentation and clarity of the manuscript have been greatly improved. All comments have been addressed and appropriate changes made.  There is one point that should be considered. On page 6, 31-32 under PICO Framework the wording is still "include children and adolescents (0-18 years) with ABI (i.e., cerebral palsy or Down syndrome)." That means that P would include only those conditions, omitting the others that are specified under Inclusion Criteria. Recommend address by changing i.e. to e.g., or else deleting the words in brackets.
REVIEWER	Lambert Felix
	University of Portsmouth, UK
REVIEW RETURNED	07-Jul-2019
GENERAL COMMENTS	Thank you for responding to earlier comments. Although the
	authors have updated the manuscript in light of reviewer's feedback, the manuscript needs more work to ensure that the methods are systematic, and complete.  My comments are as follows:  1. Introduction: Discussion about Transition programme is very minimal. Provide more details about the programme, the mechanism of action, as well as summarising the effectiveness of the programme in individuals with ABI as well the effectiveness in other population group. Please refer to Hart 2019 (https://www.ncbi.nlm.nih.gov/pubmed/31220801), and Zhou 2016 (https://www.ncbi.nlm.nih.gov/pubmed/27145890) to retrieve more details about the transition programme.  2. Page 5: Both the research questions needs to be revised. 1st question - is the aim is to explore views, experiences, and perceptions of transition services available for children with TBI? Also, suggest exploring the barriers and facilitators of the services? 2nd research question = What do the authors mean by "which type of program is most adapted?" Does it relate to the opportunity of the programme offering flexibility based on individual circumstances?  3. 2nd paragraph, page 6: "If no intervention is evaluated, to be included studies will need to transition using different measurement instruments, scales or indices" — This is not mentioned in the research question or objective? Moreover, the question on its own could be an independent review. I would suggest removing this part and just focus on the above research questions.  4. PICO Framework is good — but it is repetitive of what's already included in the earlier section. Please restructure the inclusion criteria section, and rather than having a separate paragraph on PICO framework include this as part of the inclusion criteria. It

would be useful for readers if you could discuss the inclusion

Participants: what is the difference between brain paralysis, central

criteria in bullet points.

paralysis?

Intervention: Please give example of an intervention to support transition.

Transition is defined in the 'Introduction.' Additionally, the authors stated that the definition would be broadened to incorporate transition in other sectors beyond health. Please provide some examples of the likely intervention elements/components. Perhaps include a LOGIC diagramme or an intervention framework that would be useful for the readers to get an overview of the intervention including its components.

Comparator: Give examples of likely comparators. Outcomes: Clearly specify the outcomes that are related to transitional care.

Study design: The examples included for qualitative design could be considered as a quantitative method. Qualitative design could include interviews, focus group etc. It is stated that having a comparison group is not a requirement. What about the length and number of follow-ups? Will a cross-sectional study be included? Also, clarify what do they mean by adaptation or transition planning? Does it relate to any formative research about intervention development or implementation research

- 5. Exclusion criteria: all grey literature will be excluded how about abstracts from conference proceedings? They will have been peer reviewed.
- 6. Include a paragraph 'Outcomes and prioritisation,' and clearly specify the outcomes. Specify the primary and secondary outcomes. Please refer to item 13 of PRISMA–P.
- 7. Data synthesis: As it is a mixed method discuss about how the outcomes will be measured and analysed in interventions that use a quantitative study design. Please describe how the findings from qualitative research will be synthesised and summarised.
- 8. Limitations: only electronic database will be searched, hence publication bias cannot be ruled out.
- 9. PRISMA-P checklist has been completed. However, most of the items need further elaboration or not completed. Please go through the checklist again, and ensure that each item is adequately described in the manuscript.

Please also find attached two relevant articles on transition care.

## **VERSION 3 – AUTHOR RESPONSE**

### Reviewer 1

1 There is one point that should be considered. On page 6, 31-32 under PICO Framework the wording is still "... include children and adolescents (0-18 years) with ABI (i.e., cerebral palsy or Down syndrome)." That means that P would include only those conditions, omitting the others that are specified under Inclusion Criteria. Recommend address by changing i.e. to e.g., or else deleting the words in brackets.

This was corrected on line 32, page 6.

#### Reviewer 2

1 Introduction: Discussion about Transition programme is very minimal. Provide more details about the programme, the mechanism of action, as well as summarising the effectiveness of the programme in individuals with ABI as well the effectiveness in other population group. Please refer to Hart 2019

(https://www.ncbi.nlm.nih.gov/pubmed/31220801), and Zhou 2016 (https://www.ncbi.nlm.nih.gov/pubmed/27145890) to retrieve more details about the transition programme.

The Introduction section was greatly revised to include more details about transition programmes, the mechanism of action, and the effectiveness of these programmes among the ABI population and other population groups according to the articles by Hart et al. (2018) and Zhou et al. (2016).

2 Page 5: Both the research questions needs to be revised. 1st question - is the aim is to explore views, experiences, and perceptions of transition services available for children with TBI? Also, suggest exploring the barriers and facilitators of the services?

2nd research question = What do the authors mean by "which type of program is most adapted?" Does it relate to the opportunity of the programme offering flexibility based on individual circumstances?

The research questions were revised, see page 5.

3 2nd paragraph, page 6: "If no intervention is evaluated, to be included studies will need to transition using different measurement instruments, scales or indices" – This is not mentioned in the research question or objective? Moreover, the question on its own could be an independent review. I would suggest removing this part and just focus on the above research questions.

This was removed in the 2nd paragraph, page 6.

4

- 1. PICO Framework is good but it is repetitive of what's already included in the earlier section. Please restructure the inclusion criteria section, and rather than having a separate paragraph on PICO framework include this as part of the inclusion criteria. It would be useful for readers if you could discuss the inclusion criteria in bullet points.
- 2. Participants: what is the difference between brain paralysis, central paralysis?
- 3. Intervention: Please give example of an intervention to support transition.

Transition is defined in the 'Introduction.' Additionally, the authors stated that the definition would be broadened to incorporate transition in other sectors beyond health. Please provide some examples of the likely intervention elements/components. Perhaps include a LOGIC diagram or an intervention framework that would be useful for the readers to get an overview of the intervention including its components.

- 4. Comparator: Give examples of likely comparators.
- 5. Outcomes: Clearly specify the outcomes that are related to transitional care.
- 6. Study design: The examples included for qualitative design could be considered as a quantitative method. Qualitative design could include interviews, focus group etc. It is stated that having a comparison group is not a requirement. What about the length and number of follow-ups? Will a cross-sectional study be included?
- 7. Also, clarify what do they mean by adaptation or transition planning? Does it relate to any formative research about intervention development or implementation research.
- 1. The PICO framework was integrated in the inclusion criteria section and presented in bullet points. Also, to be consistent, bullet points were used to list the exclusion criteria in the exclusion criteria section, pages 5 and 6.
- 2. Participants: "Brain paralysis" and "central paralysis" were removed as they are synonyms of cerebral palsy.
- 3. Intervention: Examples of interventions (elements / components of transition programmes) were added.

- 4. Comparators: Examples of comparators were added.
- 5. Outcomes: Examples of possible outcomes were added.
- 6. Study design: Examples included for qualitative designs were modified in order to be more specific. Additional precisions were added about the length of studies as well as cross-sectional studies.
- 7. The sentence about adaptation or transition planning was removed as it appeared confusing upon review.

5 Exclusion criteria: all grey literature will be excluded – how about abstracts from conference proceedings? They will have been peer reviewed.

Abstracts from conference proceedings that have been peer reviewed will not be excluded (Exclusion criteria, page 6).

6 Include a paragraph 'Outcomes and prioritisation,' and clearly specify the outcomes. Specify the primary and secondary outcomes. Please refer to item 13 of PRISMA–P.

In order to avoid repetition, and as per recent systematic literature reviews published in BMJ Open, we decided to specify the primary and secondary outcomes directly in the PICO framework.

7 Data synthesis: As it is a mixed method – discuss about how the outcomes will be measured and analysed in interventions that use a quantitative study design. Please describe how the findings from qualitative research will be synthesised and summarised.

Discussion on data synthesis was added for both quantitative and qualitative study designs, pages 7 and 8.

8 Limitations: only electronic database will be searched, hence publication bias cannot be ruled out.

This limitation was added in the "Strengths and Limitations of this Study" paragraph, page 3.

9 PRISMA-P checklist has been completed. However, most of the items need further elaboration or not completed. Please go through the checklist again, and ensure that each item is adequately described in the manuscript.

The PRISMA-P checklist was updated according to the modifications and additions made during the review process, and missing information was added to the manuscript.