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)	Screening Tools for Early Identification of Children with Developmental Delay in Low- and Middle-income Countries: A Systematic Review
AUTHORS	Faruk, Tasnuva; King, Catherine; Muhit, Mohammad; Islam, Md Kafiul; Jahan, Israt; Baset, Kamran; Badawi, Nadia; Khandaker, Gulam

VERSION 1 – REVIEW

REVIEWER	Louise Marryat
	University of Edinburgh, UK
REVIEW RETURNED	07-Apr-2020

GENERAL COMMENTS	BMJ Open Review - Screening Tools for Early Identification of Children with Developmental Delay in Low- and Middle-income Countries: A Systematic Review
	Overall this is a well written paper and a useful, and much needed, contribution to the literature. Major revisions:
	• My biggest concern is that this review is now rather out of date. One database appears to have been searched in April 2019 (I can't make out why this one is different to the others – perhaps it is a typo, however it appears in two places?), however, the other three databases contained papers up to April 2018. This means that by the time this paper is published, there will be c.2 years'
	worth of new papers not included. I appreciate that every researcher's face falls when asked this, but could you repeat the search and add in any relevant results?
	Minor revisions: All my other points are pretty minor. I will work through in order of appearance:
	 Abstract – Objectives – should this include 'to systematically review' the evidence on? Page 5:
	o You list a range of disorders – some I believe need capitalisation e.g. Down syndrome
	o I also think that it would be good it you clarified your stance on ASD throughout the manuscript – you use it as an example here, but later say you are excluding studies identifying ASD – I assume this is because you want to identify broad ranges
	of developmental delay rather than a specific condition, but it is a little confusing to readers, so clarification would be helpful. o You say that developmental disability is 'easily identified' – I would argue that this is not so clear cut, or at least we do not
	have a consensus in high income countries as to how to do this yet, and there are various issues around screening – see review papers by Sim et al., 2019 and Wilson et al., 2018.

- o Add 'may' into this sentence (it is not guaranteed): 'affected children may require substantial resources'
- Page 6:
- o 'In addition to them, there is an undetected number of surviving children suffering from various forms of developmental delay presumably due to brain injury during the foetal, perinatal and postneonatal period.' Surely there are also children with delay for other reasons, whether that be congenital abnormalities or global developmental delay (not caused by brain injury)?
- o 'In LMICs, parents and caregivers with strong cultural beliefs regarding health not only remain ignorant of the child's developmental deficit but also about the future impact of the condition'. could you give an example or bit of explanation of what you mean here for those of us who aren't so familiar with the contexts you are discussing please?
- Page 8: see point in major revisions about search strategy.
- Page 9
- o Did one person carry out all study selection and data extraction? Was there any quality control checking by another team member? How did you resolve disputes about inclusion a little more info would be useful here.
- o Under inclusion criteria you list 'all children aged under 5 who are at risk of developmental delay' does this just mean all children aged under 5, or was there some way that you decided that they were at risk of delay (sorry if I have missed this but I couldn't spot it)?
- Page 27: Limitations you say that you exclude children with autism, however, you are highly likely to include many who are undiagnosed within the general developmental delay studies, so perhaps that should be acknowledged.
- Discussion overall
- o Overall I would like to see a bit more in the discussion to bring together your very thorough results section. For example, which tools should the most promising results and what are the pros and cons of these. It would be good to see your finds linked into current evidence around screening, particularly within LMICs.
- o You talk a lot about cultural sensitivity and generalisability of tools to different contexts in your introduction, however, aside from translation of tools, this doesn't feel like a big theme in your discussion. I wonder if, from your findings, you feel it is even possible to find a tool which will work across all LMICs? Some conclusions around this would be interesting.
- General: you assess for quality of studies and present this in your appendices, however, I couldn't see any discussion of how you used this information in the paper either to exclude papers of low quality or to contextualise/caveat findings of particular studies. Overall though I feel this is a well written and interesting paper and, with a bit of work, will make a welcome addition to the field. Well done.

REVIEWER	Ranadip Chowdhury
	Society For Applied Studies, India
REVIEW RETURNED	07-Apr-2020
	· ·

The authors tried to look for the screening tools which have been used and validated for early identification of developmental delay in LMICs, to report how

effective they are for early identification of developmental delay in terms of validity, and to identify areas for future research. I have following comments:

- 1. The introduction is too long. The authors should focus on the objectives and try to rationalize them in the introduction.
- 2. In the objectives, three objectives are mentioned. However, in the result section, only one has been elaborated the validated one
- 3. The areas of future research are also mentioned as objective, and it is elaborated only in the discussion section.
- 4. Child development assessment has primarily two measures Physiological and Behavioural. Under behavioral measures, there are two components Direct child assessment and caregivers reposted. The authors should consider categorizing the screening tools this way.
- 5. Why Rapid Neurodevelopmental Assessment and Guide for Monitoring Child Development tools were not included?
- 6. In Table 1, it will be good to have references to get an idea which tool is part of which study, and can mention just serial numbers according to the reference listed. Also, in table 1, one more column of how each questionnaire was validated, means, the questionnaire against which it was validated.
- 7. Table 2 is not providing much information. Either it can be given as 2-3 lines in the main text or as a supplementary table.
- 8. The Bayley Scales of Infant and Toddler Development-III. which is not there in the list of tools, however at one place it is mentioned as a tool against which validation was done. There are some studies in LMIC using this tool to screen developmental delay, why those studies were not included and why Bailey is not one of the tools listed in the study.
- 9. Most of the tools used as gold standards were originally developed in HMIC. So it will be good to discuss/mention somewhere in the manuscript about what were the adjustments made before adopting it for use in LMIC settings, and even when used gold standard.
- 10. In Table 3, on what basis suitability for a particular setting was decided, good to elaborate for the understanding of readers.

REVIEWER	Professor Melissa Gladstone
	University of Liverpool
REVIEW RETURNED	30-Apr-2020

GENERAL COMMENTS This article relates to a study described as a systematic review of screening tools for developmental delay in low and middle income This is an interesting paper which has brought forward some new evidence for tools which previously have not been highlighted particularly with much research in this area over the past 10 years. I am concerned however, that the authors have not found all the tools and that their processes were not fully systematic or clear in the write up. I note that the authors have only found 41 articles that were considered relevant. A recent review (agreed – not systematic) - done by another group (Marlowe et al), last year, but not mentioned in the article at all, identified 99 tools for screening for autism and developmental delay. The authors do not mention tools such as the SWYC adapted for Brazil, the GMCD now utilised by a number of countries and the Verdisco/Engle tool and the EAPDS (see Marlowe paper). The MDAT also has been highlighted by some articles and in the

original paper describes itself as a screening tool - although some may describe it as an "assessment tool". The authors explain that they contacted authors and used grey literature but I am not sure this is fully evident from this review and is worrying, if a full picture of the present state of the literature is to be addressed. To help this article be free from this confusion, it might be very important to be extremely clear as to what the definitions are of; screening tool and how this is defined. The GMCD and SWYC describe themselves as surveillance tools but, on reading the studies on these tools, could be included as "screening tools" as the research has been done to compare the use of these tools with and without children with developmental disorders in a very thorough manner. Furthermore, the DMC (Developmental Monitoring Checklist) by Abubakar was not included – maybe because it describes itself as a "monitoring" tool? I was also surprised that the tool by Rizzoli-Cordoba used in Mexico was not discussed. Maybe because the article was in Spanish? It is therefore vital that within the section on "selection criteria" the definition of; "a screening tool" and "developmental delay" and "at risk of developmental delay" and how these terms were defined within the research must be much clearer. The authors might be clearer as to what they mean by "original studies" as well – do they mean studies where the tool was first created? There are many studies who, for example, used the Denver tool in many parts of the world. Assuming that only "original studies" were identified, does this exclude these? Some of these tools were fully adapted for use in another setting - are they then not original? Again, maybe clarity on terminology would help here. I am also not clear why DDST or Denver II is not considered a "screening tool" although the Rapid Prescreening Denver is mentioned? How was a decision made as to what was a screening tool and what was not? It must be clear as to how a decision was made as to what is a "screening tool" and a mention of other terminology such as "monitoring" tools and "surveillance" tools as well as "assessment tools" would add a lot to making the paper make sense. It feels to me that many who read this article will be surprised by the lack of information on some of the tools that have been highlighted by other studies and in the literature but which are then not mentioned anywhere in this article, even if they were "rejected" by not meeting the criteria that the authors mention. It may be important therefore to name or provide a list of all the tools which were excluded and the reasons why - so at least those reading the article are clear that those tools were rejected from the final inclusion criteria (and why). If needed, this could be a supplementary file - but really important to include as others will ask similar questions. Clearly, what stage the authors decided to include or exclude articles dependent on whether they were "validated" and what criteria they used, also needs to be clearer. It feels to me that too many were rejected early on without clear evidence as to why.

Other points:

Abstract:

Data sources - "were searched using standard methods" shouldn't be in the data sources section but in the data extraction section and be clearer. "Standard methods" does not seem all together clear

Figure 3 - I am not sure why this was included as it is not original work. It is not labelled as a Figure at the end of the article. This should be removed.

Discussion:

The authors describe how there was a "lack of standard proxy measures" that were not used for comparison to define screen positive cases. This could be highlighted more and some discussion as to what standard proxy measures were used would be useful – for example the studies on the GMCD give good examples of standard proxy measures as do a few other tool validations. It would be useful for the reader to know of any good examples which were done.

On page 26 line 20, the authors describe; "common examples" but this sentence does not flow with the provious sentence.

On page 26 line 20, the authors describe; "common examples" but this sentence does not flow with the previous sentence. Could they clarify?

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 (Louise Marryat)

Institution and Country (University of Edinburgh, UK)

Overall this is a well written paper and a useful, and much needed, contribution to the literature.

Response: Thank you very much for your nice and encouraging comment.

Major revisions:

My biggest concern is that this review is now rather out of date. One database appears to have been searched in April 2019 (I can't make out why this one is different to the others – perhaps it is a typo, however it appears in two places?), however, the other three databases contained papers up to April 2018. This means that by the time this paper is published, there will be c.2 years' worth of new papers not included. I appreciate that every researcher's face falls when asked this, but could you repeat the search and add in any relevant results?

Response: Thank you for the feedback. The search results have been updated for all four databases (Scopus, Medline, Embase and PsycINFO) by including articles published from 2018 till date of 2020. The new initial search results from 2018 to 2020 with the same keywords and search strategy like before had returned additional 305 articles for Embase, 242 articles for Medline, 14 articles for PsycINFO and 61 articles for Scopus. Eventually, five new studies were added in the review. New reference [35, 36, 38, 50, 51]

Minor revisions:

All my other points are pretty minor. I will work through in order of appearance:

Abstract – Objectives – should this include 'to systematically review' the evidence on...?

Response: Has been revised accordingly.

Page 5:

• You list a range of disorders - some I believe need capitalisation e.g. Down syndrome

Response: Corrected as per suggestion.

• I also think that it would be good it you clarified your stance on ASD throughout the manuscript – you use it as an example here, but later say you are excluding studies identifying ASD – I assume this is because you want to identify broad ranges of developmental delay rather than a specific condition, but it is a little confusing to readers, so clarification would be helpful.

Response: Methods section has been revised as per suggestion and new reference has been cited accordingly. New reference [30]

• You say that developmental disability is 'easily identified' – I would argue that this is not so clear cut, or at least we do not have a consensus in high income countries as to how to do this yet, and there are various issues around screening – see review papers by Sim et al., 2019 and Wilson et al., 2018.

Response: Though we did not mention developmental disability rather delay, the sentence has been revised and new reference has been cited accordingly. New reference [9]

• Add 'may' into this sentence (it is not guaranteed): 'affected children may require substantial resources'

Response: Revised accordingly.

Page 6:

• 'In addition to them, there is an undetected number of surviving children suffering from various forms of developmental delay presumably due to brain injury during the foetal, perinatal and postneonatal period.' Surely there are also children with delay for other reasons, whether that be congenital abnormalities or global developmental delay (not caused by brain injury)?

Response: Thank you for this feedback. We have now included this reference. New reference [4-6, 14-16]

• 'In LMICs, parents and caregivers with strong cultural beliefs regarding health not only remain ignorant of the child's developmental deficit but also about the future impact of the condition'. — could you give an example or bit of explanation of what you mean here for those of us who aren't so familiar with the contexts you are discussing please?

Response: Thank you for this feedback. We have now included this reference. New reference [22, 24-27]

Page 8: see point in major revisions about search strategy.

Response: Already responded in the Major Revision section.

Page 9

• Did one person carry out all study selection and data extraction? Was there any quality control checking by another team member? How did you resolve disputes about inclusion – a little more info would be useful here.

Response: Thank you for the nice feedback. We have elaborated that part as per suggestion. Hopefully it is comprehensible now.

• Under inclusion criteria you list 'all children aged under 5 who are at risk of developmental delay' – does this just mean all children aged under 5, or was there some way that you decided that they were at risk of delay (sorry if I have missed this but I couldn't spot it)?

Response: Thank you very much for raising this important issue. All the under-5 children who were yet to be diagnosed with developmental delay or allied health conditions were eligible to be included.

Page 27: Limitations – you say that you exclude children with autism, however, you are highly likely to

include many who are undiagnosed within the general developmental delay studies, so perhaps that should be acknowledged.

Response: Thank you very much for your constructive feedback We have acknowledged that in the study limitation.

Discussion - overall

• Overall I would like to see a bit more in the discussion to bring together your very thorough results section. For example, which tools should the most promising results and what are the pros and cons of these. It would be good to see your finds linked into current evidence around screening, particularly within LMICs.

Response: Thank you very much for raising this important issue. We have revised our discussion accordingly and added new references. New reference [70-72].

• You talk a lot about cultural sensitivity and generalisability of tools to different contexts in your introduction, however, aside from translation of tools, this doesn't feel like a big theme in your discussion. I wonder if, from your findings, you feel it is even possible to find a tool which will work across all LMICs? Some conclusions around this would be interesting.

Response: Thank you very much for your constructive feedback. With respect to your feedback, we have included our thoughts in the conclusion.

General: you assess for quality of studies and present this in your appendices, however, I couldn't see any discussion of how you used this information in the paper – either to exclude papers of low quality or to contextualise/caveat findings of particular studies.

Response: Thank you very much for raising the issue. Due to scarcity of the included studies, we couldn't afford to eliminate the studies due to poor evidence quality of individual studies. As they didn't carry significant weight in the original study findings, we have decided to discard them from the revised manuscript.

Overall though I feel this is a well written and interesting paper and, with a bit of work, will make a welcome addition to the field. Well done.

Response: Thank you very much once again for all the helpful suggestions, kind appreciation and encouraging words. We are hopeful that now the revised manuscript after addressing your comments reads much better and has improved significantly.

Reviewer: 2 (Ranadip Chowdhury)

Institution and Country (Society For Applied Studies, India)

The authors tried to look for the screening tools which have been used and validated for early identification of developmental delay in LMICs, to report how effective they are for early identification of developmental delay in terms of validity, and to identify areas for future research. I have following comments:

1. The introduction is too long. The authors should focus on the objectives and try to rationalize them in the introduction.

Response: Thank you very much for your constructive feedback. With respect to your feedback, we

tried our best to shorten the introduction.

2. In the objectives, three objectives are mentioned. However, in the result section, only one has been elaborated – the validated one.

Response: Thank you very much for your comment. With due respect, we have tried to address the first two objectives in the Results section and the third one in the end of discussion section. In lined with our objective, we have not only selected the studies based on the clear evidence on sensitivity and specificity, but also we have included the information on narrative as well as tabulated result. In the revised manuscript we have added tool specific new information on objective 2 and 3 in results section. New reference [35, 36, 38, 50, 51]

3. The areas of future research are also mentioned as objective, and it is elaborated only in the discussion section.

Response: Thank you very much for your feedback. In the revised manuscript we have included our thoughts in the conclusion as well.

4. Child development assessment has primarily two measures Physiological and Behavioural. Under behavioral measures, there are two components Direct child assessment and caregivers reposted. The authors should consider categorizing the screening tools this way.

Response: Thank you very much for your feedback. Table 3 has been revised accordingly (Table 2 in revised manuscript).

5. Why Rapid Neurodevelopmental Assessment and Guide for Monitoring Child Development tools were not included?

Response: Thank you for pointing this out. While updating the database search, we have found a recent study where GMCD was validated in Turkey, thus included in the results. As far as RNDA is concerned, it was excluded since the developers themselves advised to use it as an Assessment Tool. Quoting directly as follows: "Rapid Neurodevelopmental Assessment (RNDA) is not a screening tool. It is a hands-on assessment of a child which requires training and certification for its application. It is best used by professionals and para-professionals who have experience in working with children, such as teachers, therapists, doctors, and experienced community health care workers" (Khan et al. 2019). The reason for excluding RNDA is also mentioned in the Rejection Table provided as supplementary table S4.

6. In Table 1, it will be good to have references to get an idea which tool is part of which study, and can mention just serial numbers according to the reference listed. Also, in table 1, one more column of how each questionnaire was validated, means, the questionnaire against which it was validated.

Response: Thank you very much for your feedback. Table 1 has been updated accordingly.

7. Table 2 is not providing much information. Either it can be given as 2-3 lines in the main text or as a supplementary table.

Response: Thank you very much for your feedback. We have included table 2 as supplementary table S3 in the revised manuscript.

8. The Bayley Scales of Infant and Toddler Development-III. Which is not there in the list of tools, however at one place it is mentioned as a tool against which validation was done. There are some

studies in LMIC using this tool to screen developmental delay, why those studies were not included and why Bailey is not one of the tools listed in the study.

Response: Similar to RNDA, as the developers themselves declared Bayley III as an Assessment Tool (Weiss et al 2010), besides the studies we have screened so far had used it as an assessment tool as well. Therefore, we were unable to enlist it in our review (please check Supplementary Table S4)

9. Most of the tools used as gold standards were originally developed in HMIC. So it will be good to discuss/mention somewhere in the manuscript about what were the adjustments made before adopting it for use in LMIC settings, and even when used gold standard.

Response: The discussion section has been revised as per suggestion.

10. In Table 3, on what basis suitability for a particular setting was decided, good to elaborate for the understanding of readers.

Response: Suitability of particular settings were decided based on the study settings of eligible articles. We have now classified the tools as "Parents/ Caregiver Reported Tools" and "Direct Child Testing/ Observation Tools" in the revised manuscript.

Reviewer: 3 (Professor Melissa Gladstone)

Institution and Country (University of Liverpool)

This article relates to a study described as a systematic review of screening tools for developmental delay in low and middle income settings. This is an interesting paper which has brought forward some new evidence for tools which previously have not been highlighted particularly with much research in this area over the past 10 years. I am concerned however, that the authors have not found all the tools and that their processes were not fully systematic or clear in the write up. I note that the authors have only found 41 articles that were considered relevant. A recent review (agreed – not systematic) – done by another group (Marlowe et al), last year, but not mentioned in the article at all, identified 99 tools for screening for autism and developmental delay.

Response: Thank you very much for this helpful suggestion. We have gone through the article mentioned which is a very useful publication. We have hand searched a handful of articles based on Marlowe et al. and thus prepared a new supplementary table mentioning the rejection reasons of the excluded tools. Besides we have revised the narrative of study selection process. Hope it reads well now.

The authors do not mention tools such as the SWYC adapted for Brazil, the GMCD now utilized by a number of countries and the Verdisco/Engle tool and the EAPDS (see Marlowe paper). The MDAT also has been highlighted by some articles and in the original paper describes itself as a screening tool - although some may describe it as an "assessment tool". The authors explain that they contacted authors and used grey literature but I am not sure this is fully evident from this review and is worrying, if a full picture of the present state of the literature is to be addressed.

To help this article be free from this confusion, it might be very important to be extremely clear as to what the definitions are of; screening tool and how this is defined. The GMCD and SWYC describe themselves as surveillance tools but, on reading the studies on these tools, could be included as "screening tools" as the research has been done to compare the use of these tools with and without children with developmental disorders in a very thorough manner. Furthermore, the DMC

(Developmental Monitoring Checklist) by Abubakar was not included – maybe because it describes itself as a "monitoring" tool? I was also surprised that the tool by Rizzoli-Cordoba used in Mexico was not discussed. Maybe because the article was in Spanish?

Response: Thank you for the valuable feedback. We have hand searched the tools which were missed during systematic search. A few of them were found to be eligible for inclusion, rest of them were enlisted in the rejection table (supplementary table S4).

It is therefore vital that within the section on "selection criteria" the definition of; "a screening tool" and "developmental delay" and "at risk of developmental delay" and how these terms were defined within the research must be much clearer. The authors might be clearer as to what they mean by "original studies" as well – do they mean studies where the tool was first created? There are many studies who, for example, used the Denver tool in many parts of the world. Assuming that only "original studies" were identified, does this exclude these? Some of these tools were fully adapted for use in another setting – are they then not original? Again, maybe clarity on terminology would help here. I am also not clear why DDST or Denver II is not considered a "screening tool" – although the Rapid Prescreening Denver is mentioned? How was a decision made as to what was a screening tool and what was not? It must be clear as to how a decision was made as to what is a "screening tool" and a mention of other terminology such as "monitoring" tools and "surveillance" tools as well as "assessment tools" would add a lot to making the paper make sense.

Response: Thank you for the feedback. We have included a supplementary table S2 enlisting all the key definitions relevant to study selection. We did not discriminate among screening, monitoring and surveillance tools. If any of those tools found to be validated for screening developmental delay among under-5 children, considered eligible for inclusion. Tools which were declared as assessment tools by the developer themselves as well as studies where a tool was utilized for developmental assessment by the researchers, were excluded from the review.

It feels to me that many who read this article will be surprised by the lack of information on some of the tools that have been highlighted by other studies and in the literature but which are then not mentioned anywhere in this article, even if they were "rejected" by not meeting the criteria that the authors mention. It may be important therefore to name or provide a list of all the tools which were excluded and the reasons why – so at least those reading the article are clear that those tools were rejected from the final inclusion criteria (and why). If needed, this could be a supplementary file – but really important to include as others will ask similar questions. Clearly, what stage the authors decided to include or exclude articles dependent on whether they were "validated" and what criteria they used, also needs to be clearer. It feels to me that too many were rejected early on without clear evidence as to why.

Response: Studies were excluded after the full-text review and decisions were made unanimously by the coauthors. A supplementary table S4 mentioning the rejection reasons has been included in the revised manuscript.

Other points:

Abstract:

• Data sources - "were searched using standard methods" shouldn't be in the data sources section but in the data extraction section and be clearer. "Standard methods" does not seem all together clear.

Response: It has been revised accordingly.

Figure 3 – I am not sure why this was included as it is not original work. It is not labelled as a Figure

at the end of the article. This should be removed.

Response: We beg your pardon, there is no figure 3 in the manuscript (at least not in the revised manuscript).

Discussion:

The authors describe how there was a "lack of standard proxy measures" that were not used for comparison to define screen positive cases. This could be highlighted more and some discussion as to what standard proxy measures were used would be useful – for example the studies on the GMCD give good examples of standard proxy measures as do a few other tool validations. It would be useful for the reader to know of any good examples which were done.

Response: Thank you for this feedback. We have now included GMCD among the examples. New reference [38]. To the best of our knowledge, the available proxy measures are tool specific, working well for that particular tool and incomparable with each other. Thus, rather than recommending any, we have suggested the formation of global regulatory body in this regard comprising the experts in this field.

On page 26 line 20, the authors describe; "common examples" but this sentence does not flow with the previous sentence. Could they clarify?

Response: The sentence has been revised accordingly.

VERSION 2 – REVIEW

REVIEWER	Ranadip Chowdhury
	Society For Applied Studies, India
REVIEW RETURNED	22-Aug-2020
GENERAL COMMENTS	All comments have been addressed.
REVIEWER	Professor M Gladstone
	University of Liverpool, UK
REVIEW RETURNED	11-Sep-2020
GENERAL COMMENTS	This paper is much better. I do not have any major concerns. My only thought is that the paper is quite long and may do better to not include all the specific tools for motor and language screening. I also wonder if it could actually be written out in the introduction, the definitions of screening, surveillance and monitoring.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 2 (Ranadip Chowdhury)

Institution and Country (Society For Applied Studies, India)

All comments have been addressed.

Response: Thank you very much for your final feedback and we are grateful for your previous detailed

comments and addressing them made this manuscript a much better one for publication.

Reviewer: 3 (Professor Melissa Gladstone)

Institution and Country (University of Liverpool)

This paper is much better. I do not have any major concerns.

Response: Thank you very much for your kind appreciation. We are truly grateful for your previous detailed comments which have improved the manuscript substantially.

My only thought is that the paper is quite long and may do better to not include all the specific tools for motor and language screening.

Response: Thank you very much for your feedback. We do agree that the paper is long, at the same time we wanted to cover all the necessary information required for delivering clear messages to the readers. As far as the motor and language screening tools are concerned, according to the selection criteria, we opted for both general and domain-specific screening tools in this review (please refer to inclusion criteria 3). However, considering your comments, we have tried our best to reduce the tool descriptions from the Results section as much as possible. At the same time, we have separated the domain-specific tools from the general screening tools in both the tables (Table-1 and Table-2). We sincerely hope that these may have resolved the issue and cleared the confusion.

I also wonder if it could actually be written out in the introduction, the definitions of screening, surveillance and monitoring.

Response: Thank you very much for this helpful suggestion. We have included the definitions of screening, surveillance, and monitoring in the Introduction section of the manuscript and new references [20, 21] have been cited accordingly.