Reviewer's report

Title: Optimising motor learning in infants at high risk of cerebral palsy: a pilot study

Version: 2 Date: 6 October 2014

Reviewer: ginny paleg

Reviewer's report:

1. Is the question posed by the authors well defined?
   Page 1 line 4 “very Early” I think you need to say “well before 19 months” or somehow make this point very clear
   Page 1 Line 47/48 “The effects of active motor interventions on the motor outcomes of infants with CP have not been confirmed.” I don’t think this is true. Certainly CIMT is one that has been shown. Maybe we need to define “infants”. You may want to add that they are effective in other diagnoses such as Down syndrome eg Ulrich
   Page 1 line 49 – typo “on” not “o”
   Page 2 line 119 – I think a plug for Prechtl is warranted here
   Page 5 line 138 “or the normalisation of movement like Neurodevelopmental Therapy (NDT),” can we add the word “traditional NDT” You might get less haters this way and acknowledge that they get that you have called them out for not being evidence based.
   Page 5 line 147 EE interventions – you have not defined what “EE” is and I don’t know what it is
   Page 7 line 180 – did you know if they had cramped synchronized movements originally as well???
   Page 11 line 277 “SC” I don’t think you defined this either. I think its standard care…
   Page 18 line 453 “Although the PDMS-2 motor gain is pleasing in this study children with CP usually fall further behind peers as developmental expectations increase, and therefore over a longer period of intervention a drop in TMQ theoretically would be expected” This sentence need a comma or some more work- it doesn’t make sense to me
   Page 19 line 470 why is HOME all capitalized?

2. Are the methods appropriate and well described? I am not sure that COPM is good for infants, Can you provide more examples of studies which have used COPM for infants. I also don’t think the DASS data is pertinent. You say the DASS is higher than non risk group but that’s not really what you are looking at here. I think it should be removed, unless your GAME group has a lower DASS. I wonder if you didn’t raise the DASS initially by telling hem their kids were at high
risk!

3. Are the data sound? The SC group was quite varied, not sure it’s a great control group

4. Do the figures appear to be genuine, i.e. without evidence of manipulation? yes

5. Does the manuscript adhere to the relevant standards for reporting and data deposition? yes

6. Are the discussion and conclusions well balanced and adequately supported by the data? yes

7. Are limitations of the work clearly stated? yes

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes – but would like more about GMA (Prechtl) as many readers in US have no clue about this

9. Do the title and abstract accurately convey what has been found? yes

10. Is the writing acceptable? Yes

What a wonderful study. I would like a bit more info about what GAME looked like, maybe a photo or a small case story would help clinicians put this into action. Please publish quickly!!!

**Level of interest:** An exceptional article

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests'