Reviewer's report

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

Version: 2
Date: 6 November 2014

Reviewer: Linda P Lowes

Reviewer's report:

This is a well written manuscript. The authors are very thorough and identify possible sources of error. The only somewhat major limiting factor is that the observed changes may be attributable to the GAME or to the much higher treatment intensity.

Major

285 I would agree that SC is outside of the investigators control, however, documenting the type and quantity of intervention received while in the trial would be possible and provide valuable information for comparison. Can you provide any information to compare the quantity of therapy for each group?

306 Was the person helping the parent to develop the GAS blinded? One of the limitations of GAS is it has a subjective component. If the goal developer was blinded to group allocation it would eliminate the potential bias of making the goals easier or with smaller increments of change.

349 could amount of therapy received/home practice time be entered as a covariate to answer the question that the GAME model was the difference not just quantity?

354 could you further explain your decision not to include severity. As you point out, there is a need for reclassification at 2, however, your infants are quite young and 12 weeks is a relatively short time span. I would argue further, that perhaps the infants that changed were not as well identified as your infants without fidgety movement.

Table 2. The HOME score is not statistically significant p<0.06 but the scores and SD for the SC group is quite different. Can you discuss any clinical implications? For example, was there an outlier family in the SC group?

369 could you comment on missed appointments? A summary of the schedule for each family would be helpful.

417 Can you comment on the higher intensity versus different treatment approach as the reason for your results?

MINOR

119 - this is an important statement and both references are by the author

222-302 Please confirm that references are correctly assigned. It would appear that 13-15 would belong with GAS not BSITD
The dearth of validated responsive outcome measures is acknowledged. However, I would suggest caution in using GAS in your future RCT. (I see you discussed this later in the paper)

Please add the specific reference for the 2 point clinical significance immediately after the statement.

I agree with decision to use the PDMS, but could you please confirm that the reference you selected compares the PDMS 2

Line 49 missing “t”

Are there additional supporting references to support your statement that the HOME is reliable and valid?

How many missing values did you have?

Have you considered mental health as an exclusion criteria for the RCT

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'