Reviewer’s report

Title: Instrumented gait analysis and individually tailored interdisciplinary interventions for children with cerebral palsy: A randomised controlled trial protocol

Version: 2
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Reviewer: Elena Gutierrez-Farewik

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Review 1

This paper is a description of a study protocol designed to evaluate the added benefit to the standard CP treatment practice of performing an instrumented gait analysis (IGA) and the gait lab team to make treatment recommendations.

The protocol is quite good and well-written, if a bit wordy. With the exception of a few minor confusing points, it is very interesting and should prove to produce an interesting and important study.

Minor essential revisions: Some points to be considered: the authors describe IGA and impairment-focused interpretation as an intervention (p7) in itself (it is not an intervention)

Furthermore, who will decide the interventions performed in the ‘care as usual’ group? Assuming the interdisciplinary gait lab group will only be involved in treatment decision making in the IGA group, then the study will evaluate this group’s treatment-recommendation skills rather than the added benefit of IGA. The authors do bring this up (that they really are testing the effectiveness of two different treatment paradigms on gait improvement in CP), but will the difference be due to IGA+impairment-focused interpretation, or due to a more or less experienced/skilled/risk-taking group recommending the interventions? This point could be made a bit clearer.

The authors also only include children in GMFCS levels I and II, which represents a reasonably motor well-functioning subgroup of children with CP. This point could be made clearer and repeated in the hypotheses. Why did the authors only choose this group?

Finally, the title could be better. It is unclear from the title that all children will received an individually-tailored interdisciplinary intervention, but that it will be either be based on usual clinical exams or usual clinical exam + IGA.

In summary, the study design will adequately test the hypotheses, though they may need minor paraphrasing. Sufficient details are provided to allow replication of this work. The manuscript is well-written, with clear and original figures and tables.
Level of interest: An article of importance in its field

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.