Reviewer's report

Title: Predictors of Effectiveness of Early Intervention on Children with Intellectual Disability

Version: 2
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Reviewer: Patricia McKane

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Re: 'Predictors of Effectiveness of Early Intervention on Children with Intellectual Disability'

Der-Chung Lai, Chung-Hsin Chiang, Yu-Ming Hou, Jiun-Horng Liu, Shu-Fen Yao, How-Ran Guo and Yen-Cheng Tseng BMC Pediatrics Research article

I reviewed the manuscript and have concerns about the draft in its present form. My comments are more general and less specific, so I'm not sure if they are appropriate given the format prescribed by the review process.

The two areas that I'm most concerned about for this manuscript are 1. I think it could benefit from editing and ‘tightening’ and 2. the study design.

I recognize that due to ethical reasons there is no way to withhold treatment and thus create a suitable control group, but without one we may be seeing regression to the mean. It sounds like early intervention for children with ID is quite popular and there is a clear need to evaluate its effectiveness, but am not convinced that the methodology will withstand challenge. I think that it is a very important topic and quite timely, but am unable to recommend publication in the present form. Is a quasi-experimental approach or propensity score matched control feasible? Alternatively the authors could focus exclusively on sub-group variation within the early intervention group. As an epidemiologist, I’m not as familiar with the use of IQ test as a standard measure of development, but am concerned about its ability to measure development. Additional or alternative methods may provide a more comprehensive estimate of development, but I will defer to other reviewers for comments in this area.

I would categorize the Study design issues as "Major Compulsory Revisions".

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests