Reviewer’s report

Title: Impact of the intervention program “JolinchenKids – Fit and Healthy in Daycare” on energy balance related-behaviors: Results of a cluster controlled trial

Version: 0 Date: 24 Jul 2019

Reviewer: Russell Pate

Reviewer's report:

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This study addresses a timely and significant issue. Strengths include a large sample of childcare centers and appropriate measures for many of the key constructs. The manuscript is well organized and clearly written. However, there are major concerns with selected elements of the study design and methodology. These include:

1. The "intervention" is not a single, defined intervention approach. Rather, the focus of the intervention was selected by the individual center staff and is entirely different in some centers than others. This greatly clouds both reasonable hypotheses about intervention effects as well as interpretation of the findings.
2. The concern expressed in item 1 might have been limited if the process evaluation and post-hoc analyses had focused on the focus of the intervention selected by centers as a key elements of the study design. To be specific, why would expect an intervention that has nothing to do physical activity to influence outcomes that logically would be mediated by a change in physical activity? Would you not expect more marked changes in outcomes that are hypothetically related to physical activity in the centers that opted for the physical activity intervention during the year of observation.
3. The findings indicate an intervention effect on some motor skills. Were these effects greater in the centers that opted for the physical activity focus in the intervention.
4. The manner in which the authors created the adherence categories addresses one element of compliance but it apparently overlooks the fact that the intervention was profoundly different in some centers than others. This raises the question: adherence to what?
5. Some of the key analyses were adjusted for child BMI. What is the rationale for that step? What are the problems and limitations associated with that step?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
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Unable to assess

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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