Reviewer's report

Title: Are practitioner-based programs effective in improving physical activity? Evaluation of GoGirlsGo!

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Reviewer: Helen Elizabeth Brown

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Title Are practitioner-based programs effective in improving physical activity? Evaluation of GoGirlsGo!

General comments

This study evaluates a widely-available curricula designed to improve levels of physical activity (PA) in elementary-aged girls. The data provided, regarding intervention fidelity and efficacy, would be highly relevant to BMC Public Health readers. The key strengths of this study include the relatively large sample and the use of a hip-mounted ActiGraph accelerometer to objectively measure physical activity in participating children. Appropriate measurement has been conducted, and the conclusions reported do not go beyond the data. The tables and figures are simple and clear, and provide excellent clarification of data. My main concern is with regards to missing details in the Methods section, particularly accelerometer cut-points and analysis techniques applied. Extra care should be taken by authors to provide sufficient methodological information. There are also some referencing considerations and grammatical errors to be considered. As requested, my comments below are numbered sequentially as they appear in the manuscript, and are divided into discretionary, minor and compulsory revisions.

Specific comments

Discretionary revisions

1. Abstract, background: Authors define the target group as “elementary aged girls” – perhaps this could be changed to a more internationally-relevant term (i.e. age-specific)?

2. Introduction, paragraph 1: I'd like to see more detail about the potential health risks associated with inactivity in young girls, as further rationale for encouraging PA.

3. Introduction, paragraph 4: Please provide further information on the Boys and Girls Club (for a non-US audience).

4. Discussion, paragraph 4: Please define "5 M's".

Minor essential revisions
1. Abstract, results (and throughout): Authors refer to a "statistical increase" or "statistical difference" in outcome measures. I assume this means "statistically significant"? Adjust this for accuracy throughout the manuscript please.

2. Introduction, paragraph 1: MVPA is defined as an acronym, but authors use PA without definition - a minor detail, but please amend.

3. Introduction, paragraph 2: Authors comment on the ineffectiveness of previous trials (e.g. TAAG, GEMS) - but do not give any details. Further elaboration required please - in particular, deficiencies that require evaluation and therefore provide rationale for this study.

4. Methods, paragraph 4: Further details on the demographic information provided by the participants - plus, how such data was collected (e.g. questionnaire, interview?)

5. Results, paragraph 1: Was any information regarding socio-economic status of participants obtained? Given the correlation with PA levels, it would be really interesting to include these data if possible.

6. Results, paragraph 3: No information is provided regarding the actual increase in self-efficacy - and whether it was clinically meaningful? Please amend.

7. Results, paragraph 7: Scrapbooks/journals mentioned - but not detailed in the intervention description. Please provide further information about this element of the GGG programme.

Major compulsory revisions

Methods, paragraph 4: Considerable improvement required on the accelerometer methods employed. Please give details on cut-points used to determine activity intensity, wear-time criteria, and days included (i.e. weekend days included?).

Methods, paragraph 5: I'd like to see some exploration of the possible bias in observations of GGG sessions - given that fidelity is being examined, there should be comment on the presence (and impact of this presence) on the implementation of sessions.

Methods, paragraph 6: Significant improvement to the analysis section needed. Which statistical tests were used? How was analysis performed? Please make this a little clearer.

Discussion, paragraph 5: The limitations section is relatively weak, compared to the standard of description in other sections of the manuscript. Please adjust to comment on more of the possible limitations (e.g. representativeness of the sample?).

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.