Reviewer's report

Title: Increasing girls' physical activity during an organised youth sport basketball program: A randomised controlled trial protocol

Version: 1 Date: 24 February 2014

Reviewer: Lorraine Robbins

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Major Compulsory Revisions are needed.

Thank you for giving me the opportunity to read this interesting paper.

1. The design and randomization process are appropriate. However, it is difficult to understand how anything can really be determined from this very brief intervention, and no evidence is provided to support this 5-day span of time as being acceptable for changing behavior of girls or coaches. No follow up is mentioned. Unclear what this study is really contributing to the science. What are the benefits related to increasing moderate to vigorous physical activity (MVPA) across only a few days in a single sports program?

Unclear if control and intervention coaches received similar program objectives. Were control coaches aware that both MVPA and skill-building in the training were goals or program objectives or were only the intervention coaches informed about the MVPA?

Please indicate when the study was conducted. If the study has already been conducted, why are findings absent? For example, no demographic data are reported for coaches or participants. Consistency in terminology needs to be improved - unclear at times if participants are the players or the coaches.

Unclear why the coach education session was conducted after the 1st 2 days of this 5-day training program.

Line 126: what is Yammer and e-update?

Lines 185 and 186 already stated in inclusion criteria.

2. Intervention: Greater detail is needed re: what the intervention entails. For example, how much time was spent in education (what was focused on?), reflection (what exactly occurred?), discussions of feedback and case studies, role play and planning the next day training sessions? The authors refer to the intervention as “educational,” but it involves more than only education. Who conducted the intervention for the coaches and what were the person’s qualifications?

Unclear how coaches were supposed to interpret the step count data received.

Pair-matching procedure (based on step counts of players during 2 training sessions during baseline assessments) is not clear; please support this approach with references.
3. Power analysis: Please specify the mean between–group difference in MVPA expected and the standard deviation. The selected effect size of .60 seems large, need more justifications for this effect size. Did the interventions in the meta-analysis have the same intervention program, including duration, as this study?

Data analysis: Plan is very brief. Will the demographic factors be controlled or excluded from the mixed models?

Measures: Who created the surveys distributed to the coaches and parents? No reliability or validity information was reported. Unclear if coaches responded to open-ended questions. What were the response choices for the motivation and social context scales? How many items in each? Need reference to support strategy used to measure waist circumference.

Process evaluation: should include information about reach, dose delivered and received, and fidelity collected by an independent evaluator.

4. Writing: Some abbreviations are not defined when first introduced.

Background section is limited. Many references in the paper are greater than 5 years old. Efforts have been already directed at increasing the MVPA in in-school physical education classes and after-school programs yet outcomes related to these efforts are not addressed, and the past strategies employed to accomplish the task and their effectiveness are not discussed. What has been learned from physical education, after-school programs, etc. re: ways to increase MVPA? This information would indicate what has been done to date and would support the need for the proposed “educational” approach. Line 85- what does “little research…” mean? Were no studies conducted at all in the past to explore use of coaches to promote physical activity? If a few had been conducted, the references are not listed.

Line 92 – The call to expand the role of the coach needs clarification (Who is initiating the call? What exactly does “expand” mean?). Comprehensive evidence-based physical education curriculums are already in existence and reports indicate that they increase student MVPA levels. The authors do not articulate why a new approach is needed or what their approach adds to what currently exists to increase MVPA in programs.

Please use active voice so reader knows who is doing what.

Hopefully, these comments are helpful for strengthening the paper. Best wishes to all.

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.