Reviewer’s report

Title: A feasibility study of ‘The StepSmart Challenge’ to promote physical activity in adolescents

Version: 1 Date: 20 Aug 2019

Reviewer: Abdulaziz Farooq

Reviewer's report:

Thank you for the paper.

With n=5, I wondered about the statistical randomization (stratified twice by SES and single sex/co-ed)? With such small numbers for a feasibility study would the risk of bias not have been lessened by selecting the schools to receive the intervention? Especially as schools to approach and then classes were both purposively selected.

I do appreciate the time such study takes but the study is 2015 - are there any feasibility issues that may have changed in the meantime?

I'd question this- certainly now "Facebook is the widely used social network site by adolescents" (Wojcicki et al., 2014)

Did teachers complete the Strength and Difficulties Questionnaire for each pupil? This would seem a major imposition?

Was there any consideration of calculating the power required to test differences in the main outcome(s) in a subsequent trial?

The CONSORT diagram was slightly confusing- I assume maybe the right hand arm was meant to be control?

The conclusion is that retention is high, but that would be expected in the school setting - however feasibility re primary outcome data is the major issue. Did you consider other forms of design whereby all schools would receive the intervention - which might improve the proportion of valid data.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Acceptable

Declaration of competing interests

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

None

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Were you mentored through this peer review?

No