Reviewer's report

Title: Using the RE-AIM Framework to Evaluate a Community-Based Summer Camp for Children with Obesity: A Prospective Feasibility Study

Version: 2 Date: 12 November 2014

Reviewer: Maria Bryant

Reviewer's report:

I found this an interesting paper to read and felt it was well written (albeit a bit lengthy in places). I very much in support for the use of approaches such as RE-AIM to support decision making related to future adoption of programmes and to make improvements to optimise outcomes and cost. This kind of data also permits a contextualisation of the data on trial effectiveness.

Major compulsory

1) It is not clear whether this study intended to provide an assessment of the RE-AIM approach (as per aim provided in the final paragraph of the introduction) or provide a preliminary investigation of the CHAMP programme (as per results). If the former, I would like to see more discussion of the merits/issues with the approach, including a method for how this was measured. If the latter, there should be more information stating not only that this is an early investigation (‘pilot’) but also stating what is going to happen next? In either scenario, it would benefit with a clear explanation of what the impact of this study is. This is important in the discussion. What is the next step for CHAMP?

2) As above, I agree that this sort of ‘process’ evaluation is essential. However, it can not replace an evaluation of true effectiveness (semantics of this word perhaps confusing matters). To truly evaluate the effect of an intervention on outcomes with minimal bias, the RCT is still considered to be gold-standard. It is true that we may need to be creative/innovative and need to work closely with researchers to ensure that feasible approaches are used. Traditional RCT approaches may be deemed inappropriate, but there are many other robust RCT designs available that promote an unbiased evaluation.

This point is important in the introduction when research designs are discussed (further – I would argue that the Foster reference provided does not support the argument for not using RCTs); however, it is important to consider in the interpretation of the results. The RE-AIM output on ‘effectiveness’ can indicate whether programmes elicit a trend in the right direction, but they are not designed to provide an unbiased account of whether programmes improve outcomes significantly. In this particular instance, it is probable that the number of participants would not permit statistical comparisons (i.e. no text on power calculations). It is therefore likely that the sample size is not large enough to detect differences that would not have occurred by chance. Therefore, rather than over emphasising differences in outcomes (especially with no control arm),
data should provide information on trends and variance (e.g. confidence intervals) rather than p values. The paper would also benefit with a deeper discussion of why RE-AIM is important, how it can be used to contextualise trials and what it means for programmes going forward.

Minor essential.

1. The introduction and discussion are too long. In particular, the introduction includes a large amount of text describing research that can be read elsewhere and which is well known (e.g. co-morbidities of obesity) particularly in this topic specific journal.

2. Authors need to clarify on exactly what data were used to calculate reach. Does the population figure include only those that would be eligible? What is the numerator and denominator in the percentage?

3. Page 7 – did the advert say that it would cost $200? Please make this clear as it will impact on whether the study design is able to show whether this payment is acceptable. For example, if it did state that payment was required, it would not be possible to ascertain whether or not it was acceptable, as you wouldn’t be able to measure those not getting in touch for this reason -or whether it impacts on the demographics of the programme population. Although the population were comparable to the London population, it may not have been representative of the target ‘obese’ population.

4. Page 10 – I felt that the quizzes were a good idea to assess fidelity, but want to know whether they were used at baseline? If not, the results at follow-up could have actually been more indicative of existing knowledge.

5. Inclusion of attendees from the previous year may also influence outcomes and bias data. Please provide a rationale for their inclusion in the research.

6. In terms of adoption, did the families provide any feedback on the location? How were decisions made on which locations were most suitable?

7. Cost for delivering the programme are useful but more information is needed to include the amount required to pay by families. If this fee is intended to stay, the costs should be off-set. It is also very important that this paper does not over-state that the programme addressed financial barriers (e.g. free YMCA membership) when this was one of the reasons that families had to pay.

8. A discussion of the merits of this cost analysis over a cost-effectiveness model would enhance the paper. In many parts of the world, the programme costs may be provided by the government IF it provides evidence that it is cost-effective (i.e. costs of delivery are out-weighed by a reduction in obesity and co-morbidities).

9. Discussion – a way to tease out whether the programme was beneficial over and above normal increases in adiposity over a summer period would be by adding a control arm.

10. Discussion – the discussion would benefit with text on interpretation of findings, strengths and limitations and implications of findings.

Discretionary revisions
1. In the Procedure – please clarify if children attended the weekend sessions with their parents.

2. Page 7 – states ‘qualified candidate underwent…..’. Please state what you mean by ‘qualified’.

3. Page 9 – please indicate clearly if ITT analysis was performed.

4. Methods – state why more than 1 child was included in the sample? It would be possible to include siblings to the programme for ethical reasons, but would be more unbiased to pre-select one of these to participate in the research.

5. Implementation results (page 13) – In terms of the quiz results – what % would have been deemed acceptable?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.