Author’s response to reviews

Title: Systematic appraisal of integrated community-based approaches to prevent childhood obesity. Do we have the tools?

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Author’s response to reviews:

Dear Editor,

On behalf of my co-authors I re-submit with revisions our article entitled “Systematic appraisal of integrated community-based approaches to prevent childhood obesity. Do we have the tools?” to your journal Biomedical Central Public Health.

Please find below our replies under each of the reviewer’s comments. We thank the reviewer for the valuable comments. It was a pleasure to take them into account.

1. The authors seem to be starting with the premise that integrated community-based approaches (CBAs) work if done well. However, in the introduction the authors need to make a stronger but balanced case for the effectiveness of the approach (or not), along with supporting references.
We thank the reviewer for this comment. We have taken into account the suggestions mentioned in comment 2 as well and made the following revision:

“According to the World Health Organisation [11] and various researchers, such programmes can reduce obesity [8, 12, 13], although there is still limited evidence demonstrating their effectiveness [8, 14-17].” (lines 47-49)

2. In the second paragraph of the introduction, references 8, 11 and 12 are cited as evidence that the programmes are promising. However, only reference 8 actually includes the results of an impact evaluation. Other evidence of effectiveness can be found in: Sanigorski A et al 2008. Int J Obes (results of BAEW) and Millar L et al 2011. Obes Rev (results of It's Your Move - however these results are conflicting), as well as the authors' own 2008 publication of the effectiveness of the EPODE approach (though there were no baseline measure for the control group). Conversely, there are possibly many other programs that have been evaluated but where the evaluation results were not published (presumably because they were not effective). These include: Fun ‘n healthy in Moreland (Waters E, Gibbs L: http://child-health.mspgh.unimelb.edu.au/research_areas/obesity_prevention/funnhealthy), HPC:BAEW (see Bolton et al 2016 Obesity Research & Clinical Practice vol 10, 197-206.) and subsequent implementations of EPODE.

-This is a well take point. Please see our reply to comment 1.

3. It is correct to include process evaluations alongside impact evaluations when evaluating the effectiveness of integrated community-based approaches (CBAs) to prevent childhood obesity. However, the authors have not commented on whether impact evaluations are also being conducted at the same time and how the two processes should work together.

-We agree with this comment and made the following revisions:

“As only a few process evaluations are carried out in combination with an effect evaluation [9, 18], the results on effectiveness cannot be attributed solely to the integrated approach. Thus, it is
still unclear what are the effective elements of such integrated community-based approaches. Moreover, it is necessary to conduct effect evaluation in addition to process evaluation, in order to verify whether an improvement in the implementation process does indeed lead to a better effect. However, for creating the largest impact of ICBAs it seems important to firstly optimize the implementation so.” (lines 49-56).

4. In regards to the aims of the study, the first aim was to appraise the methods of the integrated CBAs in a systematic way. However, to be systematic suggests at least a random selection of programs to include. This was not done. Can the authors please clarify how their appraisal was systematic.

-We regret to have omitted such a clarification. We have added the following explanation:

“A systematic appraisal of the programmes’ strengths and weaknesses – namely, a detailed assessment of the steps involved and the elements that affect the various process during programme implementation –…” (lines 94-95).

-Furthermore, we have revised the sentence which explains the methods we used – i.e. the two tools – as follows:

“For the systematic appraisal, two structured tools were used to identify strengths and weaknesses of the ICBAs (referred as “programme-level”).” (lines 104-105).

5. The inclusion criteria for the programs (page 5, lines 107-109) are broad. In practice, were these the only criteria used? Please clarify.

-Indeed these were the only inclusion criteria (currently in lines 120-123); with a limitation regarding the number of initiatives that could participate to the project, which should correspond to the available budget.
6. How did the authors define integrated CBAs? And was this definition considered when including studies (or not)?

-We thank the reviewer for this comment. We define community-based approaches as the approaches that are composed of a cluster of strategies performed in a community, designed for individual behavioural change towards a healthier lifestyle by means of involving various institutions, organizations and local stakeholders (lines 43-47). Indeed we have considered this definition when selecting the participating programmes. We have added the following clarification in our definition: “…consisting of changes in the political, physical, sociocultural or economic environment” (lines 44-46).

7. To enable a judgement about the quality (or not) of a program requires comparison with an 'ideal' or benchmark, e.g. an effective program. This seems to be implicit in the process evaluation but is never made explicit to the reader. Alternatively, to investigate what components might be working or not, requires knowledge of the outcome/impact of the program - but this is also not addressed in the paper.

-We thank the reviewer for this comment and we regret to. The implicit benchmarks of the evaluation of the components of the CBA’s were the pillars of EPODE with addition of more detailed questions formulated by the evaluators. We performed a process evaluation of the use of these pillars, not their effectiveness which would require a completely different study design.

8. A limitation of this study that needs to be addressed by the authors is a possible conflict of interest in relation to the two tools. The authors are the developers of the OPEN tool and also describe modifications made in the course of the evaluation (page 8, lines 228-231 and page 13, lines 321-323). Are the developers of GPAT part of the author group?

-We agree to this comment and have made the following addition to the limitations section of the discussion:
“In addition, the appraisal of the GPAT was done only by the researchers of the current article, whereas researchers/experts from the WHO did not participate in this process due to bureaucratic issues. Nevertheless, the experts responsible for this tool were fully informed about the results of this article and even agreed to the limitations of the GPAT in relevant discussions” (lines 450-455).

9. The results - Appraisal of the programme's methods (lines 260 - 275) need more interpretation. While the range of scores are given for each domain or pillar there is no clear conclusion from the results, except that there is a large variation. Was there general agreement between the two tools regarding programs that scored high vs low? What are the areas that scored worst in general. Are there any messages for the individual programs about what they need to do better. Also, how do their results on the process evaluation concord with the results of the impact evaluation (or monitoring results) - if known.

-This is a well-taken point. We have revised the results and discussion parts as follows:

a) “Frequent weaknesses were:

• Non-inclusion of the target group in setting the objectives of the intervention, no needs assessment carried out and not addressing environmental change (main intervention characteristics)

• no measurement of process indicators (monitoring and evaluation)

• non-achievement of the majority of the objectives” (lines 288-293).
b) Common weaknesses included:

- lack of signed political support and advocacy (political commitment)
- limited use of a charter describing the terms and conditions regarding the PPPs (PPPs)
- lack of target group analysis and targeting environmental change (SSIC)
- lack of an evaluation framework integrating process and effect indicators and budget allocation for evaluation (scientific evaluation and dissemination)
- poor dissemination of results (scientific evaluation and dissemination).” (lines 301-309).

c) “Although it was not possible – or even correct – to compare the results of each of the programmes between the two tools, considering that they assess different elements under their themes (i.e. domains for the GPAT and pillars for the OPEN tool), some of the identified weaknesses were common in both tools. More specifically, all the programmes scored moderately to low with regard to monitoring and evaluation, and a process evaluation was poor or not carried out. Poor evaluation or absence of process evaluation is commonly observed in integrated community-based approaches, while possible explanations include the lack of motivation, resources, time and knowledge [24, 25]. Another observation through both tools was that the target group was not thoroughly assessed prior to designing the interventions. A target group analysis, is a critical component in order to get insights into the needs, wishes, strengths and talents of the target group [26]. When these elements are taken into consideration, the chances to reach, engage and achieve behavioural change of the groups in question are increased [27-30]. In this study it was also shown that only a few programmes implemented interventions targeting environmental change, despite being community-based approaches. This indicates the importance of strengthening the partnerships with key community stakeholders involved in childhood settings. As also highlighted in the report of Lobstein and colleagues, all childhood settings are important in shaping healthy environments and improving lifestyle behaviours [31].” (lines 372-390).
d) “Yet, it is evident that monitoring and evaluation methods are still not well-developed, if carried out at all. Furthermore, knowledge of the target group is limited, while environmental change is not frequently addressed in the approaches assessed in the current study.” (lines 460-463)

10. For this paper, the process evaluations were done by experts in evaluation of CBAs (yourselves). Can you offer any insights for others that might want to conduct a process evaluation of their program. For example, are the tools equally easy/difficult for non-experts? How should they be used in real-life practice.

-This a well-taken point and therefore we have included a relevant interpretation:

“Our experience in using the appraisal tools showed that it is not a simple task to evaluate a complex approach through them. The GPAT, although it seems a “user-friendly” evaluation tool, makes use of terminology and criteria that are not very clear to practitioners. Even after explaining to the programme coordinators their queries and after specifying the kind of information expected from the different questions (where the replies were unclear/insufficient), the replies were not always completely clear. Consequently, data collection through GPAT seems feasible for professionals without much experience in the evaluation field, after learning the purpose of each of the questions. However, the appraisal of a programme is not a task that practitioners lacking relevant expertise would be able to carry out without the assistance of experts. Yet, we anticipate that these issues can be outreached once the tool is improved. Similarly, the OPEN tool requires very good knowledge of the elements and/or process of complex approaches in order to collect and especially to appraise the data. The assistance of experts in evaluation and/or long-term experience in Public Health Practice is needed and highly recommended, as practitioners face difficulties in using comprehensive evaluation tools [24].” (lines 402-416).

11. Perhaps there are alternative, less resource intensive ways, to conduct a process evaluation of the programs that could be considered in the discussion section. For example, other studies have published results of these using different methods (e.g. Mathews et al 2010. BMC Public Health for 'It's Your Move' and Bolton et al 2016 Obesity Research & Clinical Practice vol 10, 197-206 for HPC:BAEW ). In the discussion, it would be helpful to at least acknowledge that
there may be other approaches to process evaluation that are better/worse/different to GPAT and OPEN.

-We agree to this comment and we have added the following information:

“Other comprehensive tools that have been used for the process evaluation of complex interventions seem equally difficult to be used practitioners in terms of resources and required expertise, though very useful for evaluation professionals [27, 35].” (Lines 416-419)

12. I found the first paragraph of the discussion confusing.

-We regret to have caused that confusion. The paragraph has been revised as follows:

“Several strengths and weaknesses were found in all programmes, different for each of them. It is noteworthy that the quality of the elements used for the programmes’ differed per domain/pillar assessed. For example, a programme could have a high score in the implementation domain, but a moderate score in monitoring and evaluation domain. Therefore, a higher score in a domain/pillar does not imply that a programme was better as a whole than another with a lower score. However, one may compare the programmes per domain (or per element), always when taking into account their variable contexts; namely i. the level of action (national, local or both) and the actions themselves, ii. the number of settings in which EPODE approach was implemented within a community (one setting VS multiple settings targeted), iii. the number of people targeted, iv. the number of communities involved and v. the level of dependence of these communities on the central coordination to run their actions.” (Lines 360-371).

13. Please clarify what is the expert group / team / committee (these terms are all used). The term ‘researchers’ is also used. It seems that these are in fact the authors of the paper rather than a separate group - this needs to be made clear in the manuscript and a consistent term used to identify it.

-We apologise for this confusion. We have revised the explanation follows:
“… by an expert group (i.e. the authors) – comprised by health professionals/researchers in obesity prevention and management (JCS and CR), an expert in qualitative studies (MW), professionals in development and implementation of integrated community-based interventions from the EPODE International Network (JMB and JM) and a researcher in the area of community-based interventions (KM).” (lines 168-172).

-We have also revised the expression in the following lines: 179, 242, 247, 271.

14. Please define IDEFICS (page 5, line 112).

-Thank you for this comment. We have included the full name of the project in the manuscript as follows: IDEFICS - Identification and prevention of Dietary- and lifestyle-induced health Effects In Children and infantS), (lines 125-126).

Yours sincerely,

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