Reviewer’s report

Title:A systematic review of the effectiveness of individual, community and societal level interventions at reducing socioeconomic inequalities in obesity amongst children

Version:1 Date:12 May 2014

Reviewer:alison Beauchamp

Reviewer’s report:

Thank you for the opportunity to provide feedback on this important systematic review, which aims to examine the effect of interventions to prevent or treat childhood obesity on socioeconomic inequalities in obesity. The very comprehensive search and the inclusion of high quality studies only means that this review includes the best available evidence

Minor essential revisions are:

1. I have some concerns about the way in which some interventions have been classified as individual or community. For example, in Margaret Whitehead’s paper (the basis for the classification), life skill groups are classified as individual-level interventions, with the focus on education of individuals. The four group-based educational interventions described in lines 329-337 and lines 354-368 would appear to fall into this group. According to Whitehead, there are very few true community-level interventions, and the rationale for why the authors have classified interventions as they have needs to be more explicit. To inform this, it may be worthwhile considering the intent of the intervention – is it to strengthen individuals (increase ‘agency) by targeting behaviour change, or is it more structural (targeting conditions in which the behaviour occurs)1

2. The aim of the review (lines 103-107) should state that interventions can be prevention or treatment-based, and the word ‘obesity’ should be changed to ‘obesity-related outcomes’ rather than just ‘obesity’, as not all interventions target obese children only.

3. In types of intervention, please also add that interventions can be prevention or treatment-based.

4. It would be very helpful to report the broad search terms in the body of the text.

5. Line 154 – please add in a brief justification of why only studies with a duration of 12 weeks were included (and is there a reference to support this?)

6. Line 187 – indentified should read identified

7. Line 188 – retrived should read retrieved

8. Line 232 – should read ‘intervention group (IG) compared with control group (CG)
9. Line 264 – trail should read trial
10. Line 363- leading should read lending
11. The sub-headings within the results section don’t seem to have a consistent format which makes it difficult to follow. Overall, I think this section would benefit from more ‘sign-posting’ sentences to provide direction for the reader. It would also be very helpful to briefly describe the aims of each study, but if this not possible because of the word count, could the authors mention for all studies whether interventions were preventive or treatment-based.

12. The discussion would benefit from some analysis of the potential mechanisms that underpin why some interventions were successful and others were not: 1) for where interventions appear to be similar in their aims/content but have different effects; and 2) for the different levels of interventions (e.g. potential reasons why school-based nutrition and PA education and exercise sessions or family-based education weight loss programmes were successful).

13. Lines 437, 475 and 503 refer to ‘interventions reducing inequalities’ – I’m not sure this is actually the case (assuming this statement is referring to targeted interventions conducted in low SES children only). If these interventions had been conducted across the entire socioeconomic spectrum, they may have been more effective in higher SES than in lower SES children.

14. Table 2: It’s not clear how the studies are organised in this table. Are they ordered by effect on inequalities, then gradient vs. targeted? If so, this should be explicitly stated. It would in fact be better if they were ordered according to how they are presented within the text. If there is room, it would be very helpful to include an (abbreviated) aim for each study.

15. Studies 20, 34 and 36 need more information about the setting.

Discretionary revisions
1. Tables 5-8 seem almost unnecessary. Could this information be added to Tables 1-3?

References

Level of interest: An article of outstanding merit and interest 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