Reviewer’s report

**Title:** Intervention components associated with increased effectiveness in dietary and physical activity interventions

**Version:** 1  **Date:** 21 August 2010

**Reviewer:** Catherine Lombard

**Reviewer’s report:**

BMC 14/ 8/10 Intervention components associated with increased effectiveness in dietary and physical activity interventions

This review is based on a very important topic, it is clearly written, is comprehensive and easy to read, and I enjoyed reading it. There are no compulsory major revisions required for this manuscript.

Minor essential revisions required.

Nil

Discretionary revisions as follows

1. Data extraction paragraph 1 You may wish too clarify how you chose the pre-defined intervention components

2. Results/ Behavior change techniques / paragraph 3
   
   You begin with ‘evidence indicated that change in diet and physical activity was greater for a) interventions which used established behavior change techniques etc....’ and you provide a weight loss and physical activity outcome ( additional weight loss of 4.5kg at 6 months) etc.. It is not clear what this weight loss relates to and is in addition to. Is this compared to controls receiving no advice or controls receiving non established behavior change techniques?

3. Results /Intensity/ paragraph 1 It would be important to have stated in the manuscript how many good quality low intensity interventions were included in analyses. My understanding is there would be very few high quality, low intensity interventions to compare with and therefore I wonder if the ‘favoring of high intensity interventions ’ might be due to lack of available comparisons. For example are any internet based interventions included or available in previous reviews? The reference from Shaw indicates there was heterogeneity in the studies and the contact ranged from weekly to monthly with a median of weekly which is very intensive contact. I think your conclusions are probably correct, but as you are focusing on a target group at risk of developing diabetes I think it important not to discount low intensity interventions as a feasible option unless it is clear they are not helpful rather than just not available. It would be important to discuss this more thoroughly, particularly in conjunction with a discussion around the other components of intensity ( other than contact) you analyzed.

4. Discussion Paragraph 3  ‘ we found interventions can be delivered successfully
by a wide range of providers in a wide range of settings ..... and can be effective for a wide range of ethnic and age groups.’ However your results suggest there is little evidence in ethnic groups, stated as ‘there was very little review led evidence on the relationship between ethnicity and intervention effectiveness.’ You may wish to clarify this statement or alter your conclusions.

5. Conclusions. Point e) As I have stated above I would like further evidence before recommending higher frequency or total number of contacts. Possibly the evidence suggests ‘frequency is important, along with duration and more behavior change techniques’.

**Level of interest:** An article of importance 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