Reviewer’s report

Title: Effects of a general practice guided web-based weight reduction program - results of a cluster-randomized controlled trial

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Reviewer: Anke Oenema

Reviewer’s report:

This paper reports on a cluster-randomized trial in which a web-based weight loss program provided through general practitioners was evaluated for effects on weight related outcomes and dietary and physical activity behaviours. The intervention program consists of a web-based part and is accompanied by telephone counseling sessions. The topic of study is important and timely. More evidence is needed on the efficacy of E-weight management programs and an evaluation of the efficacy and additional effects of providing such programs through GP’s is important.

The paper is clearly written and easy to read, but lacks sufficient detail particularly in the methods section. The methods section needs to be expanded drastically and the authors are strongly adviced to use the consort guidelines for reporting on E-health interventions as a guideline for presenting the study and its findings.

Major compulsory revisions

Methods:

More detail is needed about:

1. The recruitment and selection procedure: How were the GP’s recruited? What was the exact procedure that the GP’s used for inviting participants into the study?

2. Sample size calculation. Based on a sample size calculation taking into account the cluster randomized design, how many general practices would have been needed for the study and how many participants per practice?

3. The contents and the theoretical basis of the intervention and what the participants needed to do, to go through the program

4. What was the usual care in the control group?

5. The procedure for assessment of the anthropometric measures

6. The questionnaire for assessment of the dietary and physical activity behaviours

7. The statistical procedures that were used and the rationale for using so many different analyses. Because the design was a cluster randomized design, multi level analysis would have been required. It is a serious limitation of this study that no multilevel analyses were conducted.
Results:
8. What was the response rate among the GP’s who decided to participate and what was the response rate among the potential participants who were invited to participate?

9. The authors should report the results of the multivariate analyses in the paper and in the tables and not the results of the simple t-test analyses

10. There were differences between the groups at baseline. How were these differences taken into account in the analyses?

11. It would be helpful if results of a process evaluation were included in the paper. Now there is no indication at all as to how many people actually used the program, or which parts of the program were used in particular. This information would be important for interpretation of the results.

Discussion:
12. In the discussion section it seems that the authors consider their intervention program as being purely web-based, whereas in fact it is a combination of a web-based program accompanied by telephone counseling. This needs to be stressed more in the discussion section and the results of the study need to be compared to really comparable studies. Based on the design of the study, the authors cannot draw conclusions about the effects of the web-based part only.

13. The authors compare the results of their study to another study in which a weight loss of 2.6 kg was achieved and then suggest that the latter intervention was less effective than their intervention in which a weight loss of 2.5 kg’s was achieved. This postulation does not seem to be correct based on the figures that they present.

14. The authors suggest the results of their study are internally confirmed, since they use a number of weight related outcomes (weight loss, BMI and waist circumference). This is, however, a bit misleading, since BMI is a measure that is strongly related to body weight and weight loss and can, therefore, not be seen as a fully distinct measure.

15. A strong and unique point of this study is that the intervention was provided through GP’s. There is, however, hardly any discussion about the fact that the intervention was implemented in this specific setting and whether this would lead to better or longer lasting effects, or would attract other participants as compared to interventions implemented through other channels and in other settings. The implementation in this specific setting would warrant more discussion.

16. The authors mention as a strength of the study that it was a cluster randomized trial. This is not a specific strength, especially not, since the further design and the analysis plan was not designed to fit a cluster randomized trial. This is a severe limitation of the study, which should be stressed as such.

Tables:
17. Table 1: Why was there a part in the intervention that focused on letting people understand the effect of insulin and control of blood sugar or to
understand the effect of salt on hypertension? This does not seem to be related to weight loss?

18. Table 3: Indicate in the tables which type of analyses are presented

Minor essential revisions:
19. Page 10, second last sentence needs to start with a capital.
20. Page 11, second paragraph: methodical needs to be methodological
21. Table 2: Chi quadrat needs to be Chi squared

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'