Author's response to reviews

Title: Weight maintenance as a tight rope walk: a Grounded Theory study

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Author's response to reviews: see over
To the Editor in Chief of BMC Public Health

Re: manuscript ID: 3349678572961236 “Weight maintenance as a tight rope walk- a Grounded Theory study”

Dear Editor in Chief,

Enclosed you find a revised version of the manuscript: Weight maintenance as a tight rope walk- a Grounded Theory study for possible publication in BMC Public Health. We thank the reviewers for their valuable comments and efforts to help improving the manuscript. In the following pages we have given a point by point response to the reviewers and indicated the changes made in the manuscript. However, for remark number seven made by reviewer 1, we would like to ask the Editor to indicate if we have interpreted the instructions regarding figure texts and tables correctly.

The division of Epidemiology and Public Health Sciences has changed its name to Epidemiology and Global Health which is now indicated on the first page of the manuscript.

Sincerely yours,

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Response to reviewers’ reports

Reviewer 1:

Title: Weight maintenance as a tight rope walk: a qualitative interview study
Version: 2 Date: 14 September 2009
Reviewer: Donna K Ciliska
Reviewer's report:

The question posed is well-defined and is of relevance to public health. Discussion and conclusions are well developed and logically follow from the data presented.

We appreciate the reviewer’s acknowledgment of the question’s importance to public health and hope that we can clarify the remarks and concerns raised.

Major compulsory revisions

Methods
1. The methods are appropriate, but the authors should give a brief description of the philosophical paradigm and a (some) references. In analysis, you cite Glazer – if that is the method you followed, then put that early in methods.

We acknowledge the need for a more thorough description on this matter. We have now revised the manuscript (page 8) to say:

The interviews were digitally recorded and transcribed verbatim. This formed the basis for an analysis of weight maintenance using Grounded Theory [19-21]. This analytical approach is a constant comparison method, aiming at constructing a theory well grounded in empirical data.

Results
2. Description of data collection, analysis and results are generally fine. The quotes all fit the categories, except on pg 14, “holistic eater”. You have described this type as including other pleasures such as “smoking, excessive drinking”, but have illustrated with a quote of someone who no longer smokes and does not consume excessive alcohol. Do you have a better illustrative quote?

We agree with the reviewer that this section is not clear, especially the last sentence in the former first paragraph on page 14. We have therefore revised the former first paragraph (now third paragraph on page 14-15) and seen to it that the relevance of the quotation is clear:

The holistic eater
This ideal type partially uses the main strategy. Food and other pleasures are chosen to provide lust and joy, but not to an extent that is harmful for the body. The food that is chosen should provide something good for the body, both in terms of pleasure and nutrition. This means that you are allowed to have one glass of wine or to eat food high in calories at some occasions but not in excessive amounts.
The informants contributing to this ideal type described themselves as gourmets wanting food to be well prepared, tasteful, but also healthy in order to be worth to be eaten. They often chose fair-trade and locally produced products and preferred to cook food based from unprocessed products without too many additives. They were well aware of different food alarms discussed in society such as media’s focus on the risk of having Mad Cow’s disease when eating meat. These individuals had a holistic rather than a biomedical view on health.

“And I think about what is good for the body, and I like the feeling when I am able to give the body something that I know is good for it… And I like to… even when I eat a lot, I enjoy it because then I am giving the body something that it needs. I would not be able to drink very much alcohol, because then I would feel that I harmed my body.”

Woman, aged 50

The balance between having no concerns and major concerns about the weight was for the individuals contributing to this ideal type kept by being reflective without being worried about their weight and aiming at body acceptance. With regards to appearance, many of the women in this study expressed a view of body acceptance similar to “the holistic eater” and were generally proud of how they looked, being more concerned with their well-being than their appearance. Men more often expressed developing an increased concern about both appearance and health.

3. In the results, the model is good for the discreet styles, but does not illustrate the cross-relationships that the data showed. Is there a way to portray that? If not, should it be in the limitations?

We agree with the reviewer that the model may perhaps not portray all dimensions that are shown in the data. However we hope that the model by being somewhat simplified (compared to all the data that is presented) could be a help for the reader in the result section, when interpreting the results. We are not sure that this should be seen as a limitation and stated in the discussion section since all models are simplifications of findings.

4. Please take out the Curioni reference (ref #5). If you look carefully at the forest plots in that paper, there is no significant difference in weight loss in the diet versus “diet plus exercise” results (see the level of significance of the meta-analyses). In my reading of their data, their conclusion does not match the data.

We have now taken out the reference and revised the text to say (page 4):

The long-term results of obesity treatment has shown to be modest in other reports [6]. Even though some treatment methods have shown to be more successful than others, some weight regain has still been observed. Further research on lifestyle changes have therefore been asked for to understand how successful weight maintenance can be achieved [7].
Minor Essential Revisions

5. Title: Why not put method in the title: “Weight maintenance as a tight rope walk - a grounded theory study”
   - Abstract: Again, identify the method – grounded theory,
   - Take out “qualitative research interviews” – replace with indepth, in-person Interviews

We have now revised the title.

We clarified the method in the abstract (page 2):

The interviews were transcribed and an analysis of weight maintenance was performed using Grounded Theory.

We have replaced qualitative research interviews with in depth interviews.

6. Did people report that over the 10 year period their weight has not changed, or did you use their weight measurement at the 2 time points for inclusion? If the latter, you have not considered whether people have weight cycled over the 10 year period. Would the types hold for people who have gained or lost 40+ pounds but are currently within 3% of first weight record in the program? If you do not have this data, please clarify that as a limitation.

The individuals did not only have two measured weights but each informant was also asked during the interview about their weight development during the last ten years. This has now been clarified in the manuscript (page 22):

The fact that the informants were asked, in the interviews, about their weight development during the last ten years, and that the analysis not only relied on measurements from the VIP database, increase the possibility to relate the findings to “true weight maintenance”.

7. Manuscript adheres to general standards of reporting, except it needs a good edit – some verb tenses incorrect, some awkward sentences, sometimes plural used when subject is singular and opposite, sometimes people referred to as “that”. The titles of the figures and tables should be on the same page, not as a separate list.

Language revisions have been done twice before initially submitting the manuscript. We made a decision to describe the ideal types in present tense and the persons contributing to ideal type past tense. The ideal type is referred to as “it” and the persons contributing to ideal type are referred to as “they”. The authors have now reviewed the manuscript for consistency. Changes have been done on page 20 in the last paragraph:

By acquiring knowledge on food and diseases they felt as if they had more control of their own health. For these individuals, the joy of eating and the enjoyable sensations of food were not a priority.

We are not sure how to interpret the instructions regarding figures and tables that are given on the web page and have therefore consulted the Editor in this matter.
The article ”Weight maintenance as a tight rope walk: a qualitative interview study” touches the highly relevant issue of how to explain behaviour related to weight maintenance. Obesity is one of today’s biggest societal challenge, but still, there is not enough knowledge how behaviour, attitudes and strategies function. This complicates a successful prevention and reduction of overweight and obesity.

By applying grounded theory, it is possible to explore different strategies and attitudes of middle age weight maintainers. The methods are well described and appropriate for the purpose of this study. Thus, the authors come up with four main and very interesting strategies people have to maintain their weight, which could be indeed very useful for public health consultants. However, there are only few issues that should be revised.

We are pleased with the reviewer’s acknowledgement of the main strategies and our choice of design. We hope that we have considered all suggestions for revisions.

**Minor Essential Revisions**

1. **Page 4: Background:** determinants of food habits and physical activity are mostly identified, but not their relative importance (see reviews such as Procter 2007). There is no need to identify determinants on obesity once more, but rather how to change behaviour in a sustainable way.

   The text has now been modified (page 4):

   However there are fewer studies and less knowledge about the relative importance of- and the complex interaction between the factors causing overweight and obesity, including biological, socially inherited, environmental and behavioral factors [4, 5].

2. **Page 5: Weight maintenance:** need to redirect research efforts to primary weight maintenance - This might be rephrased. Why should research focus on that when more than 50% of the population is already overweight or obese? Is it not important to focus on both: primary and secondary weight maintenance?

   Primary weight maintenance is the focus of this study, which is a research area that previously has not been as much explored as secondary weight maintenance. However even though we choose to focus on primary weight maintenance in this study we acknowledge that it is important to also focus on secondary weight maintenance. The text is now revised (page 5):

   Most studies on weight maintenance have focused on secondary weight maintenance (or weight loss maintenance); how overweight or obese people who have lost have been able to maintain their weight loss. This is important, however, since weight loss programs have shown modest results [11] and it has been shown that it is easier to maintain a normal weight
than to lose weight after becoming overweight [12], there is a need to broaden research efforts and public health interventions (to not only have a focus on secondary weight maintenance). A greater focus on primary weight maintenance; normal weight or slightly overweight people and their ability to maintain weight, is also needed.

3. **Results:** Figure 3: an explanation of the rope’s shape would be helpful within the graphic. This would also ease reading results about the different types and strategies.

We have now put in text underneath each rope within the graphic, to describe the different ropes. Some minor revisions of the model have been done to further clarify the model.

4. **Page 20: Discussion:** Probably there is no need to justify the focus of the study on primary weight maintenance in the beginning. The argument that leaner and younger people without health problems have the highest probability to gain weight is not that surprising. This group might just be less aware of weight issues. And still, there is the big problem of a high prevalence of obesity.

We agree with the reviewer that there may not always be a need to justify the focus of primary weight maintenance. However we feel that it is important in this study because it addresses an alternative approach in public health work, i.e. to not only focus on high risk groups. Furthermore the referenced study gave us the initial idea of focusing on primary weight maintenance. We therefore feel that we wish to keep this reference and the justification for the study that it indicates.

5. **Page 21: Discussion:** Page 21 should be deleted as it is only a summary of what has been done — repetitive.

We have shortened the text with regards to the comment from the reviewer. However, some of the text is kept since we feel that it is important to:
- Motivate why the method is most appropriate to use.
- Explain how weight maintenance was “controlled for” in the interviews.
- Talk about trustworthiness in the study.
- Explain what needs to be further considered before implicating the model.

The text is modified as follows (page 22-23):

*In depth interviews were regarded most suitable since weight and body perceptions may be sensitive issues. The fact that the informants were asked, in the interviews, about their weight development during the last ten years, and that the analysis not only relied on measurements from the VIP database increase the possibility to relate the findings to “true weight maintenance”. We sampled our informants on the basis of information from the VIP and invited more informants than needed. The number of interviews was thus not determined beforehand and interviews were only conducted until saturation was reached, i.e. when no new aspects were found.*

*To increase the trustworthiness of the study peer-debriefing sessions were held regularly. They gave the interviewer (first author) a chance to evaluate her role in the research process and get input and critical comments from the other researchers [19]. These meetings also included negotiating the interpretation of the results and to see how the negative case*
analyses influenced emerging themes. The log book with impressions and decisions provided thick descriptions that allowed the entire research team to follow the process.

In our study we have constructed a model for the concept of primary weight maintenance. In order to discuss the model and its implications for preventive public health, it is important to discuss structural factors that may affect weight maintenance, food habits and physical activity.

6. **Page 23: Discussion: Macro environment: the role of the media is also to shape consumers identity and self perception (as found out in several types).**

This comment has now been acknowledged in the text (page 24):

*The media may also shape consumers´ identity and self perception as described by “the holistic eater” and “the weekend celebrator”.*

7. **Page 23: Discussion: Gidden’s theory of agency should be mentioned earlier as the heading including the term agency is not clear from the beginning. Probably page 22 in the beginning would a good place.**

This is now referred to earlier in the second paragraph on page 23.

*This study showed that being able to maintain weight is a combination of influences from the environment (external structures) and the individual’s own actions and will (as an agent) to maintain weight. The choices individuals make and the capacity and will they have to act within the given structures refers to Gidden´s Theory of agency [24] that will be discussed later in this section. The discussion of structure and agency refers to what extent food and physical activity habits are a result of external structures or actions determined by individual likes and dislikes [25].

8. **Page 24: Discussion: Implications of main strategies: it would be quite interesting how those different types can be easily identified, i.e. what would be helpful tools for public health consultants to identify people’s strategies to give appropriate advice**

We agree that this is interesting. In a quantitative follow up study we are focusing on how the identified attitudes, behaviors and strategies are distributed in the population, among maintainers, gainers, those with normal weight, overweight and obesity in different age groups. This will hopefully give us some further guidance on how to use the model in public health work.

**Discretionary Revisions**

9. **Page 7: Ethical considerations: might be put in a footnote.**

We have chosen to keep the ethical considerations in the manuscript.
10. Page 12: Results: To find the joy: first sentence is a bit confusing for the reader. Could be rephrased in a more clear way.

The sentence is now rephrased (page 13):

*This main strategy is implemented when walking along a relatively short rope since the individuals neither have strong heredity for weight gain, nor strong hereditary prerequisites for weight maintenance.*

11. Page 14: Results: Holistic eater: it is not obvious from a first glance what is meant by food alarm. Maybe an example would make reading easier here.

We agree with the reviewer that this was not quite clear. We have now included an example of food alarms in the text (page 15):

*They were well aware of different food alarms discussed in society such as media’s focus on the risk of having Mad Cow’s disease when eating meat. These individuals had a holistic rather than a biomedical view on health.*

12. Page 22: Discussion: The influence of structure and agency on ideal types: the last sentence of the first paragraph is not necessary to bring - this is pretty obvious

This sentence is now removed.