Author's response to reviews

Title: Adapting the SLIM diabetes prevention intervention to a Dutch real-life setting: joint decision making by science and practice

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Author's response to reviews: see over
Dear editor,

Thank you for the useful comments of the reviewers to our manuscript entitled: ‘Adapting the SLIM diabetes prevention intervention to a Dutch real-life setting: joint decision making by science and practice’. We have made major revisions in accordance with their remarks, and hope that you will accept our manuscript.

Below we provide detailed answers to all comments of the reviewers and the subsequent revisions to the manuscript.

Enclosed, please find the complete revised version of our manuscript. We look forward to a prompt and positive outcome.

With kinds regards,

On behalf of the authors
Sophia C Jansen
Reviewer Jan Jensen

This reviewer had some very good points and we are thankful for the possibility of learning from his comments.

Main comment: the method used for this project seems to be a substantial deviation away from the Delphi process. The authors may wish to consider reshaping this report to be a description of implementation of a study intervention, rather than a Delphi study.

Answer: we agree that our modifications to the classical Delphi are rather substantial. This is the main stumbling-block of both reviewers Jan Jensen and Dean Whitehead. We have tried to account for the modifications to Delphi in the Discussion section of the original manuscript. However it appears that this was not sufficient to take away methodological concerns. Therefore we have reshaped our manuscript as advised by the reviewer.

Revision: we completely reshaped the manuscript, main adjustments:

- INTRODUCTION. Parts of the original Discussion (especially the part on adaptation frameworks) are moved to the Introduction. In the revised manuscript, we have highlighted the parts that were moved. The main adaptation frameworks are now discussed in the Introduction (Backer 2001, McKleroy et al 2006, Bartholomew et al. 2011, among others). Adaptation frameworks are generally used to guide the process of adapting evidence-based interventions to real-life settings.

- METHODS. Delphi is no longer mentioned. Instead, the adaptation frameworks are used as a guideline to describe our adaptation process from SLIM to SLIMMER. We identified three steps that were essential to all adaptation frameworks and described our study according to these three steps. See page 6 in the Methods section of the revised manuscript:

"In our study we made use of the adaptation frameworks described in the Background [13-15,17,18]. We incorporated the steps which are essential to all frameworks: (1) assessing intervention elements, (2) assessing applicability issues in the local setting, and (3) resolving these issues with both intervention developers and the local practitioners. Moreover, we positioned these steps in a joint decision-making process in which researchers and local health care professionals were approached alternately. By combining the adaptation frameworks in the existing literature with a practical decision model, we were able to gain insight into the actual adaptations of the intervention, the decisions and their justification."

- RESULTS and DISCUSSION. Mainly the headings are changed - the ‘Delphi rounds’ are changed into ‘Adaptation steps’ which fit the adaptation frameworks. In the discussion, a limitation section is added.

Comment: the paper is quite long, and would be improved with overall editing to make it more concise, so the main points are not lost.

Answer: we have shortened the paper by removing some parts of the background and the methods, including Table 2. The paper stays within the word count limits of BMC Public Health. If required we can make it even more concise.

Comment: please report if approval was obtained from a research ethics board, and if participants provided informed consent prior to participation.

Answer: we obtained ethical approval of the Medical Ethical Committee of Wageningen University. Moreover, the local steering committee (with representatives of all professional groups) signed an agreement for collaboration on this project. The participants themselves, as can be read in the Methods and Results section of the original manuscript, agreed on the procedure and time investment during a collective meeting in the city hall of Apeldoorn (where the procedure was explained).
Major comments 1-12:
The reviewer states: “The authors may wish to consider reshaping this report to be a description of implementation of a study intervention, rather than a Delphi study. However, if the authors wish to report it as a Delphi study, please see notes below.” Therefore, we are not quite sure whether Major comment 1-12 still apply, since we have chosen not to report our study as a Delphi study. With this in mind, we try to reply to your useful comments as much as possible.

Major comment 1: ABSTRACT. State whether the categories were pre-defined or came out in the analysis. Give the number of elements in each category. Provide the number of elements in which adaptation involved adapting the SLIM protocol vs. how many required adaptation of real-life working procedures.

Answer: the categories were pre-defined (see also Major comment 4). The number of elements in each category are as follows: target population (3), techniques and instruments (8), intensity (2), delivery mode (3), materials (2), organisational structure (1), and political and financial conditions (3), as can be seen in Table 4 of the original manuscript. We think that adding this information to the abstract is not applicable anymore since we deleted the Delphi method. We agree with the suggestion of the reviewer to add to the abstract the number of elements in which adaptation involved adapting the SLIM protocol vs. how many required adaptation of real-life working procedures.

Revision: we added the numbers in the following sentence. See page 2 in the revised manuscript. “The adaptations either lied in adapting the SLIM protocol (6 elements) or adapting the real-life working procedures (1 element), or both (4 elements).”

Major comment 2: INTRODUCTION. Revise the goal of the paper to more clearly state the objective of the study was a) to identify which elements could be implemented in practice without adaptation, and for those that couldn’t be directly implemented b) which it was possible to adapt for implementation, and for those in which is was found possible, c) what the adaptations consisted of.

Answer: in the original manuscript we formulated the goal more shortly, however the suggestion of the reviewer is a more detailed, and therefore clearer, description of the goal.

Revision: we have revised the aim of the paper as suggested. See page 6 of the revised manuscript. “Therefore, this study presents the example of the evidence-based SLIM intervention which was adapted to a Dutch real-life setting. Our aim is to identify which SLIM elements need adaptation to be implemented in practice, and to explore how to adapt these elements to practice, in a joint decision making process of intervention developers and local health care professionals”.

Major comment 3: EXPERT PANEL. Explain how the expert committee selected those who were invited to participate.

Answer: see comment 3b of reviewer Dean Whitehead.

Major comment 4: PREPARING ROUND. How were the elements of SLIM identified? Were they already listed in the previous research, or did the identification of specific elements occur as part of this work. Define what exactly you mean by ‘element’.

Answer: the identification of intervention elements occurred as part of this work; it is the result of the first step of the adaptation process. We agree that a definition of ‘element’ would be useful. However in the literature there is no clear definition of an intervention ‘element’ (or component, aspect, characteristic) nor is there consensus on categories of elements that should be discerned. Therefore, we used a working definition of ‘element’ based on a combination of existing literature. We realise now that we did not provide this definition in the original manuscript.
Revision: we now added a definition of ‘element’ and also explicitly stated that the identification of elements occurred as part of this work. See page 8 of the revised manuscript.

“In the first step, the intervention elements of SLIM were identified. In the literature there is no clear definition of an intervention ‘element’ (or component). For the scope of this article we defined ‘element’ as ‘a characteristic of an intervention which defines its nature, categorised into target population, techniques and instruments, intensity, delivery mode, materials, organisational structure, and political and financial conditions’, based on a combination of existing literature [7,15,18].”

Major comment 5: ROUND 1. How many elements were in the micro list? Or are each of the following an element or a category of elements: target population, techniques etc.

Answer: as is described in the original manuscript there were 22 elements in the micro list. As can be seen in Table 3, Target population, techniques etc. are categories of elements. However we agree with the reviewer that this was not clearly stated in the text.

Revision: we now clearly stated in the text which categories of elements were discerned. For the revised text see Major comment 4.

Major comment 6: ROUND 2. Describe the scoring and the tool used to do it. If they did not numerically score use a different word than ‘score’.

Answer: indeed there was no numerically scoring. It was rather judging e.g. applicable/ not applicable or will/ will not influence effectiveness. We agree with the reviewer that scoring is not the right word, judging would be better.

Revision: we replaced the word scoring by judging

Major comment 7: FOCUS GROUP. How data was collected and analysed must be described much more fully.

Answer: we agree that this can be described in more detail.

Revision: we described the data collection and analysis of the focus groups in more detail on page 9 of the revised manuscript.

“The focus groups were guided by a trained discussion leader and structured with a topic list. The basic questions in the focus groups were: Are the proposed adaptations feasible in your opinion? Can you implement this intervention in practice? Any objections were discussed until consensus was reached. Afterwards, important discussion points were analysed by two persons on their consequences for adaptation of SLIM.”

Major comment 8: CONSENSUS LEVELS. Not applicable anymore (concerns Delphi)

Major comment 9: RESPONSE. The change in process from an in-person focus group to e-mail responses should be addressed in the limitations. What effect do you think this had on the quality of data received?

Answer: this is a good question. We agree with the reviewer that this should be mentioned.

Revision: We added a section limitations to the discussion in which this point is addressed. See page 16 of the revised manuscript.

“To conclude, the change in process from an in-person focus group to e-mail responses by general practitioners, could be a limitation. First, it could be a limitation of engagement. We incorporated in-person focus groups in the adaptation process in order to stimulate engagement of local health care professionals. However for general practitioners this did not work; the idea of a time-consuming focus group rather lowered their engagement. By allowing e-mail responses we were able to keep them involved. Moreover, there was only one adaptation that directly concerned general practitioners. This point was prepared orally with one of the general practitioners and thereafter accepted by all general practitioners via e-mail responses. We do not expect that a focus group would have yielded a different result here.”
Major comment 10: SLIM ELEMENTS. Most of this information on SLIM should be moved to the introduction and methods section. What is a SLIM ‘archive’?

Answer: see also major comment 4. The identification of elements occurred as part of this work; it is the result of the first step of the adaptation process. Therefore we think this information belongs in the Results section. A SLIM ‘archive’ is a map (file) with documents concerning SLIM. This is explained in the original manuscript as follows: “The SLIM archive was analysed. It contained research protocols, participant brochures and scientific articles from the period 1999 to present.” We think that ‘archive’ is a regular English word. If not, it can be changed of course, e.g. in the word ‘documentation’.

Major comment 11: PROPOSED ADAPTATIONS. Is the ‘new SLIMMER manual’ a reference for health care providers of the SLIM intervention, adapted as a result of this study? Clearly explain this. Or is this report the SLIMMER study (as later referred to in the Discussion section)? If so, this term should come up much earlier.

Answer: yes, the ‘new SLIMMER manual’ is a reference for health care providers of the SLIM intervention, adapted as a result of this study. We agree that this can be explained somewhat clearer. There is a distinction between the SLIMMER intervention (a programme for high risk groups of diabetes to be provided by health care professionals) and the SLIMMER study (the research currently going on into the SLIMMER intervention). We can imagine that the use of both terms can be confusing. Therefore we will avoid the use of the word “SLIMMER study”.

Revision: we now clearly explained what the ‘new SLIMMER manual’ is. See page 2 of the revised manuscript: “Finally, the adaptations were incorporated in the new SLIMMER manual, a reference for health care professionals adapted as a result of this study. The manual was presented to participants during a collective meeting in the city hall of Apeldoorn (August 2010).” We also deleted the word “SLIMMER study”, in order to avoid confusion with the word SLIMMER manual or SLIMMER intervention. See page 17 of the revised manuscript. “Currently, further research into the core elements of the SLIMMER intervention is being conducted making use of a taxonomy to identify behaviour change techniques [31].”

Major comment 12: DISCUSSION. Not applicable anymore (concerns Delphi)

Minor comments 1-3

Minor comment 1: ABSTRACT. Spell out SLIM the first time it is used. Define what an element is.

Revision: we spelled out SLIM. For the definition of an element see also Major comment 4.

Minor comment 2: Page 14. Under political and financial considerations, first line. Should the word not be ‘fit’ rather than ‘fitted’.

Revision: indeed the word must be ‘fits’. We changed it.

Minor comment 3: Page 15. The wording of this sentence needs editing: ‘… it was tried to overcome the resistance’. 

Revision: we changed the sentence. See page 15 of the revised manuscript: “By discussing the importance of unity in working procedures and explaining the financial compensation, the resistance more and more diminished.”
Reviewer Dean Whitehead

Comment 1: the SLIM (table 1) reference in the background section requires description – not just referral to a table.

Answer: we can imagine that a more detailed description of SLIM is desirable.

Revision: we have added a description as required (including a reference on page 4 of the revised manuscript)

“The SLIM intervention consisted of personal dietary advice by a skilled dietician, based on the Dutch guidelines for a healthy diet, during a 1-hour counselling session every 3 months. A body weight loss of 5–7% was the objective. Moreover, subjects were encouraged to participate in a combined aerobic- and resistance exercise programme. Control subjects were only briefly informed about the beneficial effects of a healthy diet and physical activity, whereas no individual advice was provided [3].”

Comment 2: the local setting also requires a statistical descriptive demographic – not just a table list

Answer: we can imagine that a more detailed description of statistical demographics is desirable.

Revision: we have added a description as required on page 7 of the revised manuscript

“Apeldoorn has 56,648 inhabitants aged 40-65 years of which 12% is of non-Dutch origin, the latter group consisting mainly of Western immigrants such as Germans (Central Bureau of Statistics, CBS). Based on a large survey conducted by the community health service (GGD Gelre-IJssel) autumn 2008, 2% of inhabitants aged 35-50 years and 7% of inhabitants aged 50-65 years report a diagnosis of diabetes. In addition 1% reports impaired glucose tolerance and 46% suffers from overweight based on self-reported weight and height. Apeldoorn has about 80 general practices, most of which are organised as a solo- or duo practice. About a quarter is organised as a group-practice, additionally, there are nine Health Care Centres where general practitioners work together with other health care providers such as dieticians and physiotherapists. There are about 40 physiotherapist practices in Apeldoorn. Almost all dieticians (about 20 practices) in Apeldoorn are employed by the Home Care organisation Vérian; only 6 have their own business.”

Comment 3a: the expert panel is small and localised.

Answer: the reviewer is right about this point. We already reflected on this in the discussion of the original manuscript:

“Generally, a panel size of 12 is considered optimal in case of a homogeneous professional group [Murphy et al, 1998]. We used a heterogeneous panel of 16 participants representing the different professional groups, to ensure optimal variation in expertise needed for our study. With this relatively small group it was difficult to conclude whether or not saturation of arguments was reached. However, there are no indications that a larger panel would have lead to other adaptation decisions.”

However we realise that our reflection may not be complete especially on the point of the panel being localised. It would be good to discuss this point in more detail.

Revision: we discussed of the localised panel in more detail. See page 16 of the revised manuscript.

“The panel was localised, since our aim was to adapt SLIMMER to the local real-life setting. The disadvantage of a localised panel may be that the adaptations are only valid in the local setting under study and are not generalisable to other settings. However, we raised the chances for successful implementation across other local settings by verifying the opinion of local health care providers with other authoritative sources, such as national institutes and national guidelines. Based on these comparisons, we know that the adaptations made to SLIM correspond with national health care practices.”

It is also interesting to mention that we now have implementation experiences available from outside the local setting of Apeldoorn (not published yet). These implementation experiences indicate that the adapted SLIMMER intervention is generally applicable across local settings.”
Comment 3b: the defining of the expert panel is ‘scant’. The expert inclusion criteria is limited to description of role and location.

Answer: we realise that the defining of expert panel can seem ‘scant’ to the reviewer. There were some inclusion criteria which are not explicitly mentioned in our manuscript.

Revision: we have now added all expert inclusion criteria explicitly on page 8 of the revised manuscript.

“The local steering committee invited a total of 16 health care professionals: four general practitioners and their practice nurses, five physiotherapists and three dieticians. They were selected by discussion and consensus among the committee with criteria being enthusiasm and local leadership in the field of diabetes prevention. It was ensured that the different types of organisation and different neighbourhoods of Apeldoorn were represented. Besides, two out of the three SLIM developers who had been involved in the SLIM study from the early start on, were approached (among which EJMF). These two were selected by the committee for the practical reason of geographical distance.”

Comment 3c: the term experts were ‘assumed’ is highly flawed and open to bias.

Answer: probably there is a misunderstanding here. This comment concerns the sentence in the original Methods section:

“Panel members were assumed to be representative for their professional group in Apeldoorn in terms of geographic location and type of organisation.”

What we meant is that panel members were selected based on location and type of organisation, so that the panel would be representative for the local setting as a whole. Whether or not the panel was actually representative is described in the original Results section:

“The panel was representative for their professional group in Apeldoorn in terms of geographic location and type of organisation (Table 3).”

However we can imagine that the word ‘assumed’ is not right and causes misinterpretation.

Revision: we changed the sentence as can be seen on page 8 of the revised manuscript.

“It was ensured that the different types of organisation and different neighbourhoods of Apeldoorn were represented”

Comment 3d: There is mention of a ‘health promotion’ expert as almost being the ‘overseer’ i.e. the expert of all the experts – but no role definition. What is meant by a health promotion expert – why are the others on the panel not the same?

Answer: this is a good question and can be described more clearly in our manuscript. A health promotion expert (or health promotion practitioner, health promotion officer) is one of the Dutch public health functionaries as defined by the Netherlands Public Health Federation (NPHF). A health promotion expert is a public health professional with expertise in prevention, behaviour change, intervention development and implementation issues. Each Dutch Community Health Service employs one or more health promotion experts. In our study, a health promotion expert was added to the panel of local health care professionals. The others on the panel (general practitioners, dieticians and physiotherapists) are not the same since their expertise mainly concerns working procedures in primary health care. Therefore, the input of the health promotion expert on prevention and public health issues was seen as relevant and complementary to the input of the local health care professionals.

Revision: we described more clearly the role of the health promotion expert on page 8 of the revised document.

“Moreover, the committee selected a health promotion expert equipped for implementation issues (JTB). The health promotion expert was added to the panel for the competencies in public health and prevention, which was seen as relevant and complementary to the input of primary health care professionals.”

Comment 4: Methodologically – the authors do not seem to understand Delphi.

Answer: see the main comment of reviewer Jan Jensen. In literature, quantitative as well as more qualitative forms of Delphi studies are described (e.g. Hahn and Rayens 1999, Richardson and McKie...
2008, Spiegle et al 2009). We intended to use a more qualitative Delphi technique, with qualitative consensus levels, face-to-face meetings incorporated etc. However, we are aware that our modifications on the classical Delphi are substantial. Although we tried to account for the modifications to Delphi in the Discussion section of the original manuscript, we understand that this was not sufficient to take away methodological concerns. Therefore we have reshaped our manuscript as advised by the reviewer.