PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	FEASIBILITY, ACCEPTABILITY, AND OUTCOMES AT 12 MONTHS FOLLOW-UP OF A NOVEL COMMUNITY BASED INTERVENTION TO PREVENT TYPE 2 DIABETES IN ADULTS AT HIGH RISK: MIXED METHODS PILOT STUDY
AUTHORS	Penn, Linda; Ryan, Vicky; White, Martin

VERSION 1 - REVIEW

REVIEWER	Kujala, Urho University of Jyväskylä, Department of Health Sciences
REVIEW RETURNED	07-Aug-2013

GENERAL COMMENTS	The primary outcome measures of this non-controlled intervention were change in PA levels and variety, so, my specific comments mostly relate to physical activity. Health and fitness trainers carried out the recruitment of participants and the program focused on supervised training. - Were the participants initially a population sub-fraction who were interested in supervised training? At least discuss. - Specific exclusion criteria? (also those with exercise-related cardio-vascular symptoms participated?- you deal with a risk group) - Then 61% completed, what about the opinions (experience) of the 39%? A limitation is that I do not find any comments on complications, which always exist with a certain frequency. Was there any systematic recording of side-effects/complications? Concerning PA diary, how long was the data collection at baseline and follow-up? The participants received an 'access to leisure' card that enabled free leisure service use for 12 months. This is likely a central part of the intervention related to effects and also cost. This is not described well in summaries and elsewhere. What this means specifically, more information; comparison to other studies, costs? All in all, this is an interesting approach with very nice results. However, it is difficult to determine the real generalizability. This intervention seems to work better than a less structured physical activity recommendation as one part of a routine clinical settings intervention (for comparison see Kujala UM et al BMJ Open 2011).

REVIEWER	Williams, Rhys Swansea University,Wales, School of Medicine
REVIEW RETURNED	22-Aug-2013

THE STUDY	'The dietary assessment method, unlike the others, is not clearly described and has no supporting validity information.'
GENERAL COMMENTS	'The study is a substantial and well conducted pilot study. It addresses an important public health problem. There are weaknesses (e.g. reliance on many self-reported outcome measures) and it is not clear whether the same or different individuals carried out the intervention and the assessment of outcomes. However, given that, it presents an important message with regard to a larger, more rigorous study. The subjects chose for study were those who had achieved "success in physical activity increase at six or 12 months follow-up". Also of interest would have been those who did not achieve this success.'

VERSION 1 – AUTHOR RESPONSE

Reviewer: Urho Kujala, University of Jyväskylä, Department of Health Sciences
The primary outcome measures of this non-controlled intervention were change in PA levels and variety, so, my specific comments mostly relate to physical activity. Health and fitness trainers carried out the recruitment of participants and the program focused on supervised training.
- Were the participants initially a population sub-fraction who were interested in supervised training? At least discuss.
The participants were recruited from the community and although the early recruitment strategy involved advertising the programme, later participants were almost entirely recruited through word of mouth. We suggest that the later recruits only became interested in this intervention opportunity after speaking with those already participating and were therefore not a population sub-fraction with prior interest in supervised training. We have added this to the discussion using track changes.
Specific exclusion criteria? (also those with exercise-related cardio-vascular symptoms participated?- you deal with a risk group)
Participants were required to complete the standard local authority physical activity questionnaire for all leisure service customers, which included questions regarding medication, diagnosed medical conditions, and any other condition that might prevent people from participating in physical activity. We have added a statement about this to the methods using track changes.
A limitation is that I do not find any comments on complications, which always exist with a certain frequency. Was there any systematic recording of side-effects/complications?
The intervention was delivered through the local authority leisure services and the leisure services standard protocol for reporting injury or other adverse side effects was used. We have added a statement about this to the methods using track changes.
- Then 61% completed, what about the opinions (experience) of the 39%?
We accept that this is a limitation. In general those who left the programme tended not to respond to contacts. We have added a sentence explaining this in the limitations.

Concerning PA diary, how long was the data collection at baseline and follow-up?
The PA diary comprised a 24 hour recall of all PA in metabolic equivalent tasks (from level 1 to level 8) and a week recall of leisure time PA (over level 5 MET). I have highlighted the relevant sections of the methods in yellow.

The participants received an ‘access to leisure’ card that enabled free leisure service use for 12 months. This is likely a central part of the intervention related to effects and also cost. This is not described well in summaries and elsewhere. What this means specifically, more information; comparison to other studies, costs?
We have included a statement about this in the discussion and additional reference to FIN-D2D.
All in all, this is an interesting approach with very nice results. However, it is difficult to determine the

real generalizability. This intervention seems to work better than a less structured physical activity recommendation as one part of a routine clinical settings intervention (for comparison see Kujala UM et al BMJ Open 2011).

Reviewer: Rhys Williams
Swansea University, Wales, School of Medicine

'The dietary assessment method, unlike the others, is not clearly described and has no supporting validity information.'
We accept this is a limitation and we have included further explanation. In the next phase we have used the DINE questionnaire as advised by the NHS National Obesity Observatory briefing paper.
'The study is a substantial and well conducted pilot study. It addresses an important public health problem. There are weaknesses (e.g. reliance on many self-reported outcome measures) and it is not clear whether the same or different individuals carried out the intervention and the assessment of outcomes. However, given that, it presents an important message with regard to a larger, more rigorous study. The subjects chose for study were those who had achieved "success in physical activity increase at six or 12 months follow-up". Also of interest would have been those who did not achieve this success.'
Please see the explanation above in response to the same point about the interview study raised by Reviewer 1. I have added a sentence about this to the limitations in the discussion.
Thank you to both reviewers for their comments.

VERSION 2 – REVIEW

REVIEWER	Kujala, Urho University of Jyväskylä, Department of Health Sciences
REVIEW RETURNED	08-Oct-2013

The reviewer completed the checklist but made no further comments