Reviewer's report

Title: A culturally adapted lifestyle intervention for a Middle Eastern immigrant population at risk of diabetes: The MEDIM (impact of Migration and Ethnicity on Diabetes In Malmo) intervention study protocol

Version: 2 Date: 2 May 2013

Reviewer: Harald Sourij

Reviewer's report:

This is a well written study protocol. However, there remain some issues that need clarification:

Compulsory Revision:
1.) Method section/Eligibility criteria: The authors state that in total 40% of the participants are estimated to be at risk of diabetes. When estimating the number of potential participants in the database they use 45%, Figure 1 uses 40% again - this needs consistency.
2.) Depending on when the MEDIM study started to recruit, a few participants might already have progressed to overt diabetes, further reducing the number of potential candidates.
3.) Figure 1 gives as primary outcome measure: improved fasting glucose - I suggest to better use "change in fasting glucose"
4.) Figure 1 gives for the intervention and the control group the exact number of participants at study end, they even mention the number of males and females - as the number of study discontinuations can only be estimated, I recommend to remove these numbers.
5.) I wondered why the authors have chosen to use fasting glucose as primary outcome measurement and do not even use postprandial glucose as secondary outcome measure in this rather short trial. As they perform oGTTs anyway they should give a rationale for why they prefer fasting glucose over postchallenge glucose or a kind of integral measurement of glycaemia during the oGTT in this cohort.

Minor Revision:
1.) Aim/Purpose: The authors should rephrase aim 2 - e.g. "...whether it is mediated through insulin sensitivity as assessed by the insulin sensitivity index...". Likewise the wording should be changed in section 9 Follow up and evaluation of data.
2.) Discussion, 3rd paragraph: Authors should consider rephrasing "We will solve this issue..." to "we aim to solve this issue".
3.) Typo in Methods/Economic evaluation, 2nd paragraph: trial instead of trail.
4.) Discussion, 3rd paragraph: "...offering gender-specific group sessions with
gendera health coach..." - please replace gendera with a.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I do not have competing interests with regard to this manuscript.