Reviewer's report

Title: A population study on the association between leisure time physical activity and self-rated health among diabetics in Taiwan

Version: 1 Date: 23 February 2010

Reviewer: Anu Molarius

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This is a cross-sectional population study on the dose-response relationship between leisure time physical activity and self-rated health among diabetics in Taiwan.

Major Compulsory Revisions

The BMI cut-off used for defining overweight was 23 kg/m2. This does not follow the WHO recommendation. Was another cut-off point used because this is an Asian population? If so, a reference should be given.

The response rate of 92% for individuals is very high. What was the response rate for households?

The study does not mention whether the role of physical activity differs between persons with type 1 and type 2 diabetes. Are there any previous studies that have investigated such differences? Was anything about the type of diabetes known among the participants?

The role of smoking needs to be elaborated.

The fact that the study is based on cross-sectional data is shortly mentioned in the end of discussion. The results need to be more thoroughly discussed in this respect. Even though the results were adjusted for diabetes-related factors, the association between physical activity and self-rated health can be reverse: those who have better health may be more able to undertake physical exercise, especially among those with longstanding diabetes.

The prevalence of good health was very low and the prevalence of physical inactivity very high in this diabetic population. This should be discussed in more detail and compared with other similar studies.

Including the forth aim to the study is relevant, but it should be better justified in the background and the results should be discussed in relation with other similar studies.

Is it possible that the results may have been affected by small numbers of subjects in some categories?

The first sentence in Conclusions should indicate that this was observed among
diabetics.

Tables
Table 2. Model 1, 2 and 3 should be explained, are the odds ratios mutually adjusted? Why is model 1 interesting?
Table 3. The number of subjects in each category should be given.
Table 4. The number of subjects in each category should be given. Are the odds ratios mutually adjusted?

Minor Essential Revisions
The term “odds ratios of positive health status of diabetes” in the headings in tables 1-3 is confusing. Is “odds ratios for positive health status among diabetics” meant? Similarly, does “of physically inactive diabetes” in table 4 mean “for physical inactivity among diabetics”?

Discretionary Revisions
The exact odds ratios and confidence intervals are repeated several times in the text, once is enough.

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

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:
I declare that I have no competing interests.