Reviewer's report

Title: Characteristics of severely obese children and adolescents in the Netherlands (HELIOS project)

Version: 2 Date: 19 September 2012

Reviewer: Milagros Huerta

Reviewer's report:

This is a descriptive study with a clearly stated objective of assessing prevalence of cardiovascular risk factors and quality of life in severely obese children selected for a clinical trial of intensive inpatient treatment for obesity. The results of intervention have been published elsewhere.

The major objective of the paper is well defined, the paper is well written. My concern is that main focus of the study is the prevalence of cardiometabolic risk factors which has been well studied in obese children in larger sample sizes although not specifically in the Netherlands. Other european studies did not include a significant number of Dutch children.

Major Revision/concerns: The sample size of 80 is relatively small compared to other published studies which have reported prevalence of cardiovascular risk factors in obese children. Findings such as early onset of cardiovascular risk factors in obese children are already well documented by other studies. One of the inclusion criteria to select participants for intervention was dyslipidemia, insulin resistance or type 2 diabetes for those with BMI SDS more than 2.3, therefore this sample was preselected and therefore has a higher prevalence of these factors than a general population of obese children.

The assessment of quality of life in severely obese children is more novel and I would suggest this should be the main focus of the paper and explained in more detail as this would represent a more significant contribution to the field.

The details of evaluation included and interpretation of EQ VAS should be explained in more detail so reader can understand the results reported in page 10.

Results section should separate with subtitles, demographic data, anthropometric data, quality of life results and cardiovascular and metabolic risk factors.

Table 1 is titled Demographic Characteristics but it includes results of quality of life and prevalence of comorbidities, the latter could be removed, or title could be changed.

Discretionary Revisions:
The title could be more focused on the actual data presented, for example "Cardiometabolic Risk factors and quality of life in Severely Obese children"
**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:**

No conflict of interest