Reviewer's report

Title: Correlates of perceived health related quality of life in obese and non-obese older adults: an observational study

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Reviewer: Yvonne van Mourik

Reviewer's report:

The authors stated that the aim of their paper was to analyse the correlates of health related quality of life (HRQL) in obese and non-obese Italians older adults. In their paper, they do not answer this question. They show us the results of difference in baseline characteristics between normal, overweight and obese older persons (table 1). The correlates were analysed in all Italian older adults, which showed that BMI correlates independently significant with HRQL (table 2). The second part is already known, as the authors stated in their introduction that many studies report the association between obesity and worsening health related quality of life in both sexes? What's new or interesting for the readers is not clearly described in the discussion.

Major compulsory revisions

- Study population: In the methods is explained that 205 patients admitted into the division between January 2010 and December 2012 were recruited, were this all patients admitted? In the results you didn’t mention how many patients were excluded or didn’t want to participate. How many patients were eligible (so aged above 60 years)? Were the excluded patient more likely to be obese? Could this influence your results, in which way?

- Methods: statistical analysis: why did you divide the persons in three BMI classes, where your aim was to analyse between obese (#30kg/m2) and non-obese (<30kg/m2) persons?

- In the methods should be clear that you also looked at the mental component of the SF-36 in your statistical analysis, although you mentioned that there was no significant difference in your results.

- Results: the correlation analysis was performed to evaluate the variables associated with PSC and you stated that BMI was significant; your analysis was performed in all older persons and not differentiated in variables associated with PSC in obese persons and in non-obese persons. You stated that BMI is negatively associated with PSC, which was already known from literature (as you stated in your introduction). Could the variables associated with PSC differ between non-obese and obese persons? Is this not interesting for future funding?

- Conclusion stated that many aspect were significant determinants for quality of life, is this for all older persons or only the obese older persons? The authors say
that funding should be invested in benefits of losing weight, why? Is there evidence that eventually patient have a better HRQOL? And at short time, what is the influence of losing weight/diet on HRQOL?

Minor essential revisions
- Abstract: Background: “205 subject at the age ….. Ancona (Italy) should be placed at the methods section.
- Abstract: Results: ‘significant variables were included in a linear regression model as independent variables’ should be stated in the methods section, which variables were significant is a result.
- Put all inclusion and exclusion criteria of you study population under one heading, namely sample and recruitment.
- Discussion: ‘as our results show, the BMI of obese subjects was significantly higher than those in the other two groups’. This is obvious, as BMI is included in the definition of obesity.
- Discussion: ‘consistent with another Italian study, the negative impact on quality of life was observed in domain reflecting physical status, not mental health’. I wonder what the rationale behind this is, why would obesity only affect the physical quality of life.
- Discussion: ‘In particular, physical functioning, bodily pain, ..... are the components of SF-36 which differed significantly’. Isn’t this obvious, as these, except vitality, were the subscales of PCS?
- Conclusion: too long, part of sentences written in the conclusion, should written in the discussion.

Discretionary revisions
- Which ethics committee?
- Your definition of primary/secondary/tertiary education?
- Definition of obese is usually written as BMI #30 kg/m2
- Discussion: ‘unsurprisingly, the prevalence of cardiovascular diseases was significantly higher in obese subjects’, this is generally known, but this should be supported with a reference.
- Abbreviations not used properly through the article (first time mentioned).

Level of interest: An article of limited interest

Quality of written English: Acceptable

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.