Reviewer's report

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

Version: 1 Date: 16 August 2013

Reviewer: Shariff-Ghazali Sazlina

Reviewer's report:

Minor Essential Revisions:

Abstract, first paragraph: statement “205 subjects at the age # 60 yrs. recruited into the Division of Endocrinology of the Polytechnic University of the Marche, Ancona (Italy)” should be under the methods section

Abstract, first paragraph: to include in the background section the rationale for this study

Background
• To describe the magnitude of obesity among older persons as public health problem by providing some statistics on the prevalence of obesity among older persons worldwide and in Italy.
• The authors should focus and describe the impact of obesity among older persons.
• The authors should also provide background literature on the impact of obesity on health related quality of life of older persons (if any) and what previous studies have found on the correlates of health related quality of life among obese people since there is none on the older persons.

Background, fourth paragraph, “Minor issues not for publication”: to remove either the word ‘elderly’ or ‘older adults, do not use both in the sentence. Please ensure this throughout the manuscript.

Methods, first paragraph – Sample and recruitment
• Authors should describe the study design, sampling methods, inclusion and exclusion criteria under this subheading.
• What was the response rate for participation in this study?
• What was the estimated sample size for this study?

Methods, second paragraph – Instruments
• Anthropometric measures and clinical data
• What were the ‘extensive clinical and case history evaluation’ performed? Suggest that authors describe these clearly in the methods section.
• Suggest that authors provide the classification of BMI used in this study.
• The sentence “Subjects who met any of the …diabetes mellitus” should be placed under the subheading Sample and recruitment.

Methods, fourth paragraph – Quality of life
• The authors should describe how the SF-36 subscale scores for the 8 domains, and PCS and MCS scores were computed.

Methods, eighth paragraph – Statistical analysis
• Minor issues not for publication”:
# Authors must ensure the abbreviations use throughout this manuscript is uniform (‘PSC’ should be ‘PCS’?), similarly for Tables 1 and 2
• Why was the correlation analysis performed only for PCS scores and not for the MCS scores?
• It is unclear on the bivariate analyses performed to determine the association between SF-36 scores and the independent variables to determine the potential variables to be included in the regression model. What analyses were used for categorical variables?
• Was ‘a linear regression model’ performed for the analysis conducted as a multiple regression model? If not, strongly suggest that the authors performed a multiple regression model to address issues of the type 1 errors from the analysis.
• The authors should elaborate on the regression analysis performed for this study, including the method of regression used, the cut-off used for significant variables to be included in regression model, and if the assumptions were checked and fulfilled.
• For the regression analysis, the authors should elaborate on why the Physical Component Summary score was used as the outcome measures and not the individual subscale domains representing the physical component of SF-36.

Methods, fifth to eighth paragraphs
• The validity and reliability for the elderly population of the questionnaires used in this study: PASE, SF-36, HADS, and Lubben SNS should be included.
• “Issues not for publication”: Authors must declare the permission and purchase of licenses for the use of questionnaires such as PASE and SF-36 due to intellectual property and copyright issues.
• The process of data collection during this study is unclear. Please elaborate on this under the methods section.

Results
• Did the authors determine the normality of the data prior to the selection of the parametric tests? Suggest that authors use appropriate tests based on the normality of data.
Results, second paragraph: to provide the exact p values and avoid using p<0.05.

Results, second and third paragraphs, “Minor issues not for publication”: please change abbreviations PSC and MSC to PCS and MCS, respectively.

Results, second paragraph: Are the results in Table 2 of correlation analysis or linear regression?

Results, second paragraph 2:
• It is unclear about the tests used to determine the associations between PCS and MCS, respectively with the independent variables in this study.
• Did the authors perform Pearson’s correlation analyses for the categorical variables too (which is inappropriate)? Kindly address these and clearly state in the results section.
• Suggest that the authors present the bivariate analysis results in a table and the results of Pearson’s correlation must be clearly presented (provide the r and p values of these results)

Results, second paragraph, “Minor issues not for publication”: statement “Any that were significant were included in a linear regression model as independent variables…” is unclear. Kindly rephrase this sentence.

Discussion, second paragraph: the statement “the BMI of obese subjects was significantly higher than those in the other two groups..” is unclear since the authors have classified the participants according to the BMI. Therefore, participants who are obese are those with higher BMI.

Discussion, fifth paragraph: The authors should also discuss why age and education were associated with PCS of quality of life.

Conclusion, first paragraph: In view of the possibility of sarcopenic obesity among older persons, the authors need to address the types of physical activity recommended in older persons.

The last sentence in the conclusion paragraph is unclear on how physical activity becomes a psycho-therapeutic tool. Please rephrase this statement.

Table 1:
• Please clearly state that continuous independent variables were presented as mean and standard deviations (if non normally distributed data should be presented as median and IQR) and the categorical data as frequency and percentage.

Table 1, “Minor issues not for publication”: What was the rationale of the one-way ANOVA performed to determine the mean difference of BMI across the different BMI categories? Didn’t the authors categorize the participants according their BMI and this provides the significant difference detected
Table 1, “Minor issues not for publication”: “Number of drugs assumed” Is this the number of medications prescribed? Kindly rephrase this.

Table 1, “Minor issues not for publication”: to provide the exact p values for the all the results and do not use ‘p<0.05’ for significant results and ‘n.s.’ for non-significant results.

Table 1, “Minor issues not for publication”: kindly make the table self-explanatory. It is unclear what the superscripts a, b, c denotes. Please clearly define the post hoc test notation of what each of a, b & c represents.

Table 2, “Minor issues not for publication”: To remove the t values and ‘not standardized coefficient’ and present as B and SE, beta, include the 95% confidence interval results and the p values in the regression table.

Level of interest: An article of importance in its field

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.