Reviewer’s report

Title: PREVALENCE AND RISK FACTORS FOR FRAILTY AMONG HOME CARE CLIENTS

Version: 0 Date: 27 Jun 2017

Reviewer: Caterina Trevisan

Reviewer’s report:

I have read with interest the manuscript "Prevalence and risk factors for frailty among home care clients". The Authors investigated the prevalence of frailty assessed through the abbreviated Comprehensive Geriatric Assessment (aCGA) in a sample of older home care clients, and the factors mostly associated with the presence of frailty. The results showed a notable prevalence of frailty in the study sample, and identified malnutrition and low educational level as factors significantly associated with frailty.

This is an interesting topic and, although frailty prevalence and determinants have been already well-investigated by previous studies, having considered home care clients may represent a novelty for the current literature. However, I have some concerns and suggestions regarding the study:

First of all, I suggest to the Authors to better clarify in the Abstract and in the Results (lines 178-179) that the reported OR=0.83 is for high educational level (the fact that it is written after low education could be misleading, since it seems that low education decreases the risk of reporting frailty).

Methods:

- Lines 110-112: looking at the description of data assessment, it seems that different professionals were involved for the participants´ interviews. I would specify if they attended some previous training courses to strengthen the validity of your data; moreover, what was the role of the dental hygienists in this context?

- Lines 127-134: please to specify in the Methods why you considered together risk of malnutrition and malnutrition (is it due to a scarce representation of participants in one of these groups?) and which cut-off was used. Moreover, clarify why you set a cut-off of 10 drugs/day as regards the use of prescription and over-the-counter drugs.

- Line 141: please to specify and eventually correct the BMI cut-off used to define obesity (in the text is >30, usually is ≥30 kg/m2).
- Line 151: please to clarify that the cut-off of ≥1 for ADL and IADL indicating the need for a more elaborate assessment of functional domain is related to the presence of at least one impairment in the ADL and IADL considered.

- Lines 155-159: why have you used the term "cut-off maximum"? Moreover, please to provide some references regarding the definitions of frailty used, as the report of a positive score in at least one or two of the three aCGA domains.

Results:

- Table 2: I think that an intriguing finding is that frail persons seemed to be more malnourished, but demonstrated also the tendency (although not significant) of presenting higher BMI values. This result could corroborate the hypothesis that higher BMI in older people does not mean better nutritional status, and contrasts a number of studies reporting lower BMI for frailer persons. However, having a higher BMI could underlie a pattern of conditions at high metabolic risk; moreover, we cannot exclude that frail persons with higher BMI were experiencing a greater weight loss than non-frails. I would suggest to the Authors to comment this finding in the Results and Discussion.

- Line 205: reference 28 should be updated in the correct format.

- Lines 210-211: please to discuss the association between educational level and frailty in the light of the large literature in this field, citing the most validated hypothesis suggested to explain this relationship.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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