Reviewer's report

Title: Associations of Sleep Quality and Sleep Duration with Frailty and Pre-frailty in an Elderly Population Rugao Longevity and Ageing Study

Version: 1 Date: 13 Nov 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are minor issues

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Maybe - with major revisions
PEER REVIEWER COMMENTS:

GENERAL COMMENTS:

The authors have investigated an important potential association between sleep quality status and functional outcome now widely being seen as critical for the health outcomes of our aging population, in this case frailty. I have some comments related to the methods and designs that I believe if the authors address will add to the impact of the submission. First, numerous grammatical and sentence structure errors were noted in the manuscript the frequency was such that it became a distraction to reading the study for the overall merits of the content. I strongly advise the authors to undergo editorial revision to improve the overall presentation of their submission. Next, authors should rephrase The categorization of the groups based on PSQ by using the official distinction of greater than or equal to five In signifying poor sleeper status and less than five signifying good sleeper status. Authors should also state if the questionnaires for both frailty and sleep quality were completed solely by the research subject or if it could have been completed by a caretaker/designate. This is critical to notes as many of the measures being reported are based on subjective assessments. Co-variable analysis should also include whether any of the subjects had a current or previous history of being treated for a sleep disorder or any other metric used to determine frailty. Authors should also provide a bit more detailed summary of the study methods that they noted had been published previously, this is fairly routine as to allow the reader to still have a basic picture of the design and method without having to completely refer to a previous publication. Finally authors do include covariable analysis that takes into account subjects occupation, however a significantly large percentage of the subjects were farmers and should be discussed as a limitation as well as in the discussion section as to how a Specific occupation such as farming which is not only physically demanding that could impact frailty but an occupation that can also have a particularly unique regimental challenges to one's Sleep - these factors should be considered and factored into the interpretation of these results

REQUESTED REVISIONS:

Please see detailed response of my comments and suggestions for further analysis and discussion that could enhance the submission

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.

No
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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:

Needs some language corrections before being published

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Please complete a declaration of competing interests, considering the following questions:

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