Reviewer’s report

Title: Cognitive, functional, physical, and nutritional status of the oldest old encountered in primary care: a systematic review

Version: 0 Date: 18 Nov 2019

Reviewer: Kirsten Moore

Reviewer's report:

This is an interesting review and important to consider the growing amount of literature on the health status of those over the age of 90. The search was comprehensive and the methods look appropriate. My main concern is regarding the level of explanation and interpretation of the findings. Revisions suggested:

In the method section add detail regarding how the two researchers who independently extracted data dealt with discrepancies. This is described for the search but not extraction.

There needs to be more interpretation of the findings in both the results and the discussion. In Table 1 and Additional File 2 some of the findings are presented without explaining their meaning. I appreciate that most readers will be able to interpret some scores such as MMSE but for some columns there are not enough details to interpret the scores. Details could be included in footnotes. More specifically:

* What do score ranges on the MMSE mean ie &lt;18, 19-23 and &gt;23

* For de Rango et al - what does ADL Feeding 73.4% mean? Does it mean that 73.4% of women have difficulties with feeding or are independent in feeding?

* What are healthy BMI, MNASF and MNA ranges?

* Some of the data needs to be compared with norms for other age groups such as those in their 80s otherwise reading a hand grip strength or gait speed is meaningless.

* While Dai et al did not provide their IADL and ADL measures, a score of 26 is meaningless unless we know the possible ranges, normal scores and whether a higher score indicates more dependence or independence.

The tables present article references in a different format to the text which means that you need to keep going back to the reference list to cross reference the text with the table. The numbers in square brackets should be added to the tables to make it easier to cross reference details from the text.

Page 11 line 211 - add reference for the 4 articles noted.
It is likely that institutionalised participants were more likely to have deficits in the outcomes of interest therefore the tables should indicate whether the samples are of participants living at home or in a nursing home, or mixed. Some comparison between the two populations could also be explored in the discussion.

Although many studies present data by gender, there is no discussion about gender differences which may be useful to include in the discussion.

I do not understand which data has been pulled out for inclusion in Table 2. The text suggests it includes studies with populations over 95 but two of the included papers are not over 95. It also mentions education level, but it is not clear how these papers were selected on this basis either.

Discussion: While the authors acknowledge heterogeneity of the 90+ population and the need for a person-centred approach, it may be worth stating that using chronological age as a basis for guiding or planning services may be unhelpful.

P 14 line 282 - should be: New approaches could also be designed as suggested by Tischa et al…

P32 Denmark not Danemark.

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

Yes

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

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