Reviewer's report

Title: Prevalence and determinants of overweight and obesity in old age in Germany

Version: Date: 30 March 2015

Reviewer: Maria O'Sullivan

Reviewer's report:

Comments

The study sets out to determine the prevalence of overweight and obesity in a group of older adults (n – 1882) aged 75 and over, and examines some of the possible determinants/associations with higher BMI/weight gain using cross sectional approach and longitudinal data. With the determinants/associations showing somewhat divergent findings.

Certainly characterising/describing BMI in a large group of older adults (75+) is an interesting and laudable aim, especially in this older old group, however the clarity as to what the consequences/determinants of BMI is more challenging to interpret from this paper and thus the implications of the findings for translation. And with that may take away from the descriptive findings;

Comments: essential revisions

1) Re the differences in outcome based on cross sectional v longitudinal data:
- It is worth a clear comment on the potential translation of the higher BMI determinants. Is a higher BMI likely to be beneficial/ adverse? Likely to be difficult to interpret without the context of frailty, also the metabolically healthy obesity phenotype. Is it fitting the obesity paradox? The limitations are well acknowledged in the discussion, but in the absence of a measure of recent weight/muscle loss (which is a poor predictor of health irrespective of starting BMI) it is difficult to interpret. Shortened discussion may help.
- Might it simply be that BMI is not necessarily a useful measure in older adults or as a predictor of health in older old (but possibly may be more useful as part of a more complex score)

2) Discussion / conclusion
- The discussion, would benefit from considerable cutting back/shortening around the discussion of the determinants (as a more concise discussion of the BMI determinants, given that acknowledgement of limitation are listed, would make it clearer for the reader).
- The conclusion would general focus only on the specific findings of this study, rather than more general finding and extrapolations.

Specific minor comments: clarifications
- In first part of discussion, it is stated that those with increased BMI were
younger (but still over 75 from the inclusion criteria?), ie the study interestingly stills shows age as a determinant even in a group > 75 years. (worth reminding the reader)

• Please clarify for the reader the nature of gymnastics, if 42% of >75 year olds are partaking in / capable of gymnastics?
• 54% long walks (if not already stated, please clarify what is meant by a long walk, eg duration)

**Level of interest:** An article whose findings are important to those with closely related research interests

**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'