

*Supplementary Materials*

# **Mediterranean Diet and Sarcopenia Features in Apparently Healthy Adults over 65 Years: A Systematic Review**

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**Table S1.** Quality assessment of cohort studies according to the New Castle Ottawa scale (NOS).

| Author  | Milaneschi et al.<br>2011<br>[56] | Shahar et al.<br>2012<br>[57] | Talegawkar et al.<br>2012<br>[58] | Chan et al.<br>2016<br>[60] | Isanejad et al.<br>2017<br>[59] | Cervo et al.<br>2021<br>[49] |
|---|-----------------------------------|-------------------------------|-----------------------------------|-----------------------------|---------------------------------|------------------------------|
| <b>Selection</b>  |                                   |                               |                                   |                             |                                 |                              |
| 1) Representativeness of the exposed cohort                                 | ★                                 | ★                             | ★                                 | ★                           | ★                               | ★                            |
| 2) Selection of the non-exposed cohort                                      | ★                                 | ★                             | ★                                 | ★                           | ★                               | ★                            |
| 3) Ascertainment of exposure†   | a                                 | a                             | a                                 | a                           | a                               | a                            |
| 4) Demonstration that outcome of interest was not present at start of study | b                                 | d                             | Not clear f                       | Not clear g                 | h                               | i                            |
| <b>Comparability</b>  |                                   |                               |                                   |                             |                                 |                              |
| 1) Comparability of cohorts on the basis of the design or analysis          | ★★                                | ★★                            | ★★                                | ★★                          | ★★                              | ★★                           |
| <b>Outcome</b>  |                                   |                               |                                   |                             |                                 |                              |
| 1) Assessment of outcome ††   | ★                                 | ★                             | ★                                 | ★                           | ★                               | ★                            |
| 2) Was follow-up long enough for outcomes to occur‡                         | ★                                 | ★                             | ★                                 | ★                           | ★                               | ★                            |
| 3) Adequacy of follow up of cohorts   | c                                 | e                             | ★                                 | ★                           | ★                               | j                            |
| Total quality score   | 6                                 | 6                             | 7                                 | 7                           | 7                               | 6                            |

†A star was given if the exposure was based on medical record or direct measurement.

†† A star was given if the outcome was an independent blind assessment, medical record or direct measurement.

‡ A 3-year follow-up was considered enough for outcomes to occur.

a Dietary assessment was done with a food frequency questionnaire (self-report).

b The Short Physical Performance Battery test was performed at baseline and follow up. However, there was a group free of baseline mobility disability (SPPB score  $\geq 10$ ) in which a higher adherence to Mediterranean diet at baseline was related to lower probability of mobility disability at follow-up.

c From 937 participants 247 participants died, and 10 were lost to follow-up. Participants who were not followed up, were older, more likely to be disabled, reported more chronic diseases, had poorer cognitive function and lower extremity performance.

d Eligibility criteria included self-reporting of no mobility problems.

e The follow-up included 54% of the initial sample after 8 years. The missing subjects were older.

f Not clear. The authors do not report if they made frailty measurements at baseline.

g Sarcopenia was present in several subjects at baseline. Some analysis were done after exclusion of sarcopenic subjects at baseline.

h Sarcopenia was present in several subjects at baseline.

i Measurements performed at baseline and follow-up. Not clear if subjects were excluded from further analysis.

j 22% of the participants were lost at follow-up.

**Table S2.** Quality assessment of cross-sectional studies according to the AXIS tool.

|   | <b>Kim et al.</b> | <b>Mendes et al.</b> | <b>Borges et al.</b> | <b>Fougère et al.</b> |
|---|-------------------|----------------------|----------------------|-----------------------|
|   | <b>2019</b>       | <b>2019</b>          | <b>2022</b>          | <b>2015</b>           |
|   | <b>[53]</b>       | <b>[61]</b>          | <b>[48]</b>          | <b>[54]</b>           |
| 1. Were the aims/objectives of the study clear?   | Yes               | Yes                  | Yes                  | Yes                   |
| 2. Was the study design appropriate for the stated aim(s)?  | Yes               | Yes                  | Yes                  | Yes                   |
| 3. Was the sample size justified?   | Yes†              | Yes                  | No                   | No                    |
| 4. Was the target/reference population clearly defined? (Is it clear who the research was about?)   | Yes               | Yes                  | Yes                  | Yes                   |
| 5. Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?     | Yes               | Yes                  | Not Known            | Yes                   |
| 6. Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?      | Yes               | Yes                  | Not Known            | Yes                   |
| 7. Were measures undertaken to address and categorize non-responders?   | Yes               | No                   | No                   | No                    |
| 8. Were the risk factor and outcome variables measured appropriate to the aims of the study?  | Yes               | Yes                  | Yes                  | Yes                   |
| 9. Were the risk factor and outcome variables measured correctly using instruments/ measurements that had been trialled, piloted or published previously? | Yes               | Yes                  | Yes                  | Yes                   |
| 10. Is it clear what was used to determined statistical significance and/or precision estimates? (eg, p values, CIs)                                      | Yes               | Yes                  | Yes                  | Yes                   |
| 11. Were the methods (including statistical methods) sufficiently described to enable them  | Yes               | Yes                  | Yes                  | Yes                   |
| 12. Were the basic data adequately described?   | Yes               | Yes                  | Yes                  | Yes                   |
| 13. Does the response rate raise concerns about non-response bias?  | No                | ND                   | ND                   | ND                    |
| 14. If appropriate, was information about non-responders described?   | Yes               | ND                   | ND                   | ND                    |
| 15. Were the results internally consistent?   | Yes               | Yes                  | Yes                  | Yes                   |
| 16. Were the results for the analyses described in the methods, presented?  | Yes               | Yes                  | Yes                  | Yes                   |
| 17. Were the authors' discussions and conclusions justified by the results?   | Yes               | Yes                  | Yes                  | Yes                   |
| 18. Were the limitations of the study discussed?  | Yes               | Yes                  | Yes                  | Yes                   |
| Other   |                   |                      |                      |                       |
| 19. Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?                                   | No                | No                   | No                   | No                    |
| 20. Was ethical approval or consent of participants attained?   | Yes               | Yes                  | Yes                  | Yes                   |

† Power analysis was not performed but the sample is based on the national population-based Korea National Health and Nutrition Examination Survey.

ND: Not determined.