Author's response to reviews

Title: A longitudinal analysis of diet quality scores and the risk of incident depression in the SUN Project.

Authors:

Almudena Sanchez-Villegas (asanchez@dcc.ulpgc.es)
Patricia Henriquez-Sanchez (patricia.henriquez@ulpgc.es)
Miguel Ruiz-Canela (mcanela@unav.es)
Francisca Lahortiga (flahortiga@unav.es)
Patricio Molero (pmolero@unav.es)
Estefania Toledo (etoledo@unav.es)
Miguel A Martinez-Gonzalez (mamartinez@unav.es)

Version: 4 Date: 14 July 2015

Author's response to reviews: see over
The authors have improved on the original in addressing reviewers comments but there are still some things that could be better.

Minor essential

In the abstract conclusion the concept of nutrient deficiencies does not follow from what is written in the results. The way the results are described could be clearer, especially for the analyses using just the baseline diet and for MDS, it seems there was a threshold effect so that although there was a lower risk of depression in Q2-Q5 relative to Q1, there was not much extra benefit after Q2. Following your suggestion we have re-written the conclusions section in the abstract to improve the interpretation.

When describing the MDS explain the way the categories are grouped to maintain even numbers in the groups as done in response to reviewers. Following your suggestion we have added new information in the methods section explaining how the MDS and its categories were created.

Page 21. ‘Less important reductions in risk of depression’ is not an appropriate way to describe this. We have corrected this sentence in the last version of the manuscript.

As above, the description of the shape of the curves in Fig 1 could be better so the idea of correcting a nutrient deficiency between Q1 and Q2 then little further benefit was easier to understand

OK

Discretionary

The new title seems clumsy and not quite clear. Following your suggestion we have modified the title of the manuscript.

In line 6 of the intro replace ‘nutritional quality’ with ‘nutrition’.

OK

Is PREDIMED the only study that has used the PDP? Unfortunately, the PREDIMED is the only study that has analysed the effect of the adherence to the Pro-vegetarian Dietary pattern associating its adherence with a reduction in the risk of total mortality.

Page 13 describes a ‘linear’ relationship between MDS and depression but elsewhere you argue for an L-shaped association. You are right. We have removed this sentence.

P14, still the description of the residual analysis in Table 4 is not very clear. We have added several sentences to more clearly explain our statistical approach to capture the proportion of variability in PDP and AHEI-2010 that were not explained by adherence to the Mediterranean diet.