Reviewer's report

Title: Lifestyle factors, demographics and medications associated with depression risk in an international sample of people with multiple sclerosis

Version: Date: 10 September 2014

Reviewer: Jerome Sarris

Reviewer's report:

A neat paper with very interesting findings.

Major Compulsory Revisions
None

Minor Essential Revisions

Abstract
* Be specific about what type of study this is in the abstract- a cross sectional analysis?
* Spell patient health questionnaire
* Advised to clarify what "screened positive for depression on PHQ-2. I can;t imagine there is a definitive diagnostic element to this.
* I would consider adding limitation in there somewhere e.g. cross sectional data and not longitudinal (also in methods and discussion/limitations.

Methods
* I would like to see more detail on the depression questions for the PHQ-2. Especially considering this is the key outcome for your paper.
* How was this 'advertised' and did they receive any compensation for participation?
* Trial registration number?

Discussion
* Have you considered if people from North and South hemispheres may have different mood levels due to seasonal difference when completing the interview? Could be a confounder...
* Table- I would had in the footnote what the positive screen for depression actually means
* It is good you have highlighted the anti-inflammation nexus with MS and depression. I would emphasis this a little more, and can alos find data on exercise, meditation, and smoking re reduced inflammatory biomarkers.

Discretionary Revisions
* I would seriously consider making some simple bar chat figures for your very
interesting data. Esp the omega 3 and diet data showing that dose-dependant effect...

*Response options categorised for the purpose of analysis for meditation- as 'never', 'less than once per week’ or ‘once or more per week’. This appears to be dichotomous e.g. never or over one time per week. For future studies I would at least have a 2-4 times per week option

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

None