Reviewer’s report

Title: Prenatal Micronutrient Supplementation and Postpartum Depressive Symptoms in a Pregnancy Cohort

Version: 1 Date: 19 May 2012

Reviewer: Kristen Hurley

Reviewer’s report:

The manuscript “Prenatal Micronutrient Supplementation and Postpartum Depressive Symptoms in a Pregnancy Cohort” examines the association between prenatal micronutrient supplementation and the risk for symptoms of postpartum depression in a longitudinal pregnancy cohort. The manuscript is very well written and is important in its field. Please see specific comments /suggestions regarding study design and methodology.

ABSTRACT

Discretionary Revisions

Methods: Consider including sample size used for current analysis in the abstract.

Results:

1st sentence: Consider incorporating what being < 10 and > = 10 on the EPDS represents into the sentence. Some readers may not be familiar with the EPDS and it’s typical cut-offs (e.g. what might represent “low” or “high” depressive symptoms).

2nd sentence: Consider defining “most” (e.g. x/x examined) and adding word “mean” before intakes.

2nd and 3rd sentence: For clarity, consider stating that these associations are based on bivariate analyses.

INTRODUCTION

Discretionary Revisions

1st paragraph, line 8-10: Consider replacing “mental (and physical)” with “health and development” and adding reference to at least one health effect.

3rd paragraph, line 4: Consider replacing word “pregnancy” with “the offspring”.

Minor Essential Revisions

Consider adding your initial hypothesis (hypotheses) to end of the introduction.
METHODS AND MATERIALS

• Study design and participants

Discretionary Revision

2nd sentence: Does “drug abuse” included “alcohol abuse” Might clarify.

Last sentence: If possible, consider referencing a previous APrON publication, as well as their website.

• Participant background and covariates

Minor Essential Revisions

Nice description of demographic and social/lifestyle variables in Table 1. For clarity re: direction of findings, consider showing column rather than row percentages (e.g. % of mother in each EPDS group with 3 chronic diseases, etc). Consider adding footnote re: definition of EPDS and cut-offs.

Major Compulsory Revision

Do you have data on the nutritional status of these women during pregnancy (e.g. weight status, weight gain, iron/anemia status, etc)? If so consider exploring as moderator (e.g. did the effect of MN supplementation on PPD vary by prenatal nutritional status). If not, consider addressing in discussion section as limitation.

• Prenatal nutrient intake form supplements –SIQ

Major Compulsory Revisions

4th paragraph: Consider adding justification for method used to assess individual supplement intakes. Have others validated method, etc? In discussion, consider addressing its limitations and expanding upon alternative (potentially more valid/reliable) methods.

4th paragraph: The average intake of each individual nutrient intake across 3 time points was examined in the current analysis. Did you examine timing or dose effects (e.g. taken at all three time points vs. just twice, during 3rd trimester and postpartum vs. 2nd and 3rd trimester). If not, consider exploring/adding to results.

Minor Essential Revisions

Last sentence of 4th paragraph: Consider adding reference for IOM.

Statistical Analysis

Major Compulsory Revisions

Did you examine interactions between nutrients (e.g. iron and vitamin C; iron and zinc, etc)? If not, consider adding to your analysis or mentioning in discussion as
limitation/direction for future study.

RESULTS

• Nutrient data

Discretionary Revision

Last sentence: Consider clarifying here that overall trend was not statistically significant.

• Assessing predictors of depressive symptoms on the EPDS

Discretionary Revisions

2nd paragraph: Although not significant, consider adding statistic for omega-3. Even though it is not significant, direction of association would be informative.

DISCUSSION

Minor Essential Revision

1st paragraph, line 12: Consider adding references after sentence that ends with “associated with depression”

2nd paragraph: Good description of previous findings. Consider being more specific re: how selenium status was assessed for each study described. For example, in the second to last sentence of the paragraph, it is not clear if selenium status was based on dietary/supplement intakes or serum concentrations.

Discretionary Revision

5th and 6th paragraphs: For increased focus, consider shortening/combining these 2 paragraphs.

Major Compulsory Revisions

7th paragraph: Did you examine serum concentration level for any nutrient. If not, you might consider stating that it was an overall limitation to your nutrient analysis (not just for selenium).

9th paragraph: Consider adding more re: implications for further research (e.g. how can future research build on your findings (e.g. use of objective measures to assess nutrient status, looking at interactions between nutrient intakes/status, etc.).

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:

I declare that I have no competing interests’ below