Reviewer's report

Title: Nutritional knowledge as a determinant of vitamin and mineral supplementation during pregnancy

Version: 2 Date: 29 July 2013

Reviewer: Sofia Correia

Reviewer's report:

This manuscript may be an interesting topic but needs to be more structured. It remained confused, particularly the discussion, and the authors should not take conclusions that were not shown in the results and were not part of the initial objectives.

Regarding previous comments:

1. The introduction is clearer now but needs a link between social indicators and nutritional knowledge. The authors refer that use of supplements during pregnancy was found to be associated with socioeconomic characteristics in several countries and then state that in Romania little is known about the effect of nutritional knowledge. And in other countries? No references were added about this.

2. Comment #4 – not addressed. And I do not understand the explanation for the found socioeconomic differences: “this might suggest the existence of social inequities or the influence of economic factors in making health-related decisions”.

3. Comment #6, Sample calculation – not addressed. The authors refer (page 21, paragraph 2) that the “size of our study was determined to examine the relationship between nutritional knowledge and use of supplements” but in the methods is referred as to be based on a prevalence estimate (and even so, the authors should provide the precision of this estimate).

4. Comment #7: inclusion and exclusion criteria remain incorrectly described (if were invited women with singleton pregnancies it is not possible to exclude from this sample multiple pregnancies).

5. Comment #8: not addressed. The use of Spearman or Pearson correlation tests does not provide evidence of representativeness. Besides that, and with the exception of maternal age, the authors compare categorical variables (residence and marital status). The distribution of these variables in the sample and in the population should be compared with chi-square tests and the mean of maternal age with t-test.

Other major compulsory revisions
6. The discussion remains confused. The same topic is discussed in several paragraphs and mixed with other topics (eg. the discussion of the determinants of multivitamins in page 17 and in page 19 after discussing determinants of folic acid, iron and supplements in general).

Page 16, paragraph 2 – this sentence is a repetition of the objectives

The authors argue that the low use of folic acid could be explained by the lack of reimbursement but the use of iron and multivitamins seems to be independent of the cost and reimbursement. Why folic acid would be different?

The authors refer that GPs and obstetricians seem to be communicating the importance of folic acid effectively because early prenatal care was associated with folic acid use. Early prenatal care seems to be important but I would not say that the strategy is effective since a) the prevalence of use is low and b) inequalities in social characteristics were observed. Furthermore, the authors refer that “we also found that less well-educated women who engaged with prenatal care were more willing to take supplements” but these results were not presented…

7. The conclusions do not reflect the study results. Authors had not “quantified the extent to which Romanian women understand the importance of a relatively straightforward health intervention”, and no results were observed for “Engagement with prenatal care appeared to increase the likelihood that less well-educated women would take supplements during pregnancy”

8. The term “predictor” should be used more carefully or not used at all. The study design does not allow this assumption. E.g. discussion Nutritional knowledge was significantly associated with the intake of these supplements instead of “Nutritional knowledge was a significant predictor for the intake of these supplements”.

9. Methods, “Design and study population”, paragraph 1 – “We conducted a cross-sectional questionnaire study”

10. Methods, paragraph 2 – The sentence about the assumptions for sample size calculation should be placed when describing the calculation (paragraph 4).

11. The analysis on the content of the nutritional knowledge questionnaire is not part of the main objectives and should be on the methods section (and resumed).

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests