Author’s response to reviews

Title: Maternal iodine status during lactation and infant weight and length in Henan Province, China

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Version: 3 Date: 26 Aug 2017

Author’s response to reviews:

1. Was there any ample size calculation in planning the study? If so, please add to the method section. Since this is the primary data collection, missing urine samples would automatically be missed out, and should not be written as it is an exclusion criteria. This should come in the method section, describing how many pairs met the inclusion criteria, but got excluded due to missing urine samples.

The authors’ answer:

In our original design, we want to analyze the weight and height of 0-1 year infants. But their weights and heights were very different and variant from 0 to 12 month. It is difficult for us to acquire merged normal values of their weight and height as the parameters in the size calculation equation. So we can’t use the size calculation equation to acquire our sample size correctly. Therefore, we require that each city in our province provide 100 infant-mother pairs. According to the plan, a total of 18 cities should provide 1800 infant-mother pairs, which is a large sample size and can meet our study needs.

According to your suggestion, the part about the missing urine samples has been deleted in the Methods section, Line 85, Page 3.
2. This study measured UIC using a single, casual urine sample. Authors seem to be clear that single spot urine can be used to reflect iodine status in a population. However, authors argued that UIC can reflect iodine status by referencing WHO recommendation that low UIC reflects prolonged intake of an individual. This is only valid if several or repeated spot urine samples, not a single spot, of an individual is assessed (e.g., Konig, et al, JN 2011).

The authors’ answer:

We also agree the reviewer’s views that multiple or repeated spot urine samples are more representative an individual iodine status than single sample. But in actual situations, it is difficult for both lactating women and their infants to provide several urine samples. Most of them come from the outpatient clinics for postpartum care. We can’t ask them to satisfy our more needs. Please understand our situation.

3. In connection to (1), the analysis of agreement of UIC between mothers and infants become invalid, because this analysis is done using individual level data. Suggest to remove the kappa analysis, while the correlation already supports the conclusion that maternal (lactating) UIC relates infant UIC. In fact, $r = 0.203$ (and significant) may not be considered low as there are several factors that may affect the correlation.

The authors’ answer:

We very appreciate your advices. The Kappa analysis has been deleted in Result section, Line 141, Page 4.

4. For clarification, is the ANOVA analysis used in Table 3? Please put is as a footnote for the p-value.

The authors’ answer:

ANOVA was used to compare the mean anthropometric index between different groups in Result section, Table 3, Page 5, which has been added in the footnote. Thanks.

5. Minor/editorial:

a. Use of article 'the' is not appropriate in a few places in the Background section, and others. There are also a few awkward sentences and incorrect grammar (e.g., was instead of were).

The authors’ answer:
Thanks for your suggestions. We re-examine the full text of my manuscript carefully to revise the inappropriate sentences and correct the wrong grammars.

b. There are a few places which typo errors (which can not be detected by spell check, because it is a wrong word) remain, for example,
   i. Line 69: should it be 'insufficient' not 'sufficient'
   ii. Line 70: suggest to change 'prenatal' to 'pregnancy'
   iii. Line 172: 'storied' should be 'stored'; suggest 'retained' may be a better word here.
   iv. Line 194: arm 'circumference' not 'circumstance'; and second 'years' of life, should this be -- second 'year'.

The authors’ answer:
   i. The references [13-15] in line 69 cited a Chinese study. Because China belong to iodine sufficient area, it is expressed the “sufficient”. The words have been deleted in Backgroud section, Line 67, Page 3.
   ii. to iv. We are so sorry for the errors. Line 70, 172, 194 in Backgroud section, Page 3 have been corrected according to your advice.

The editor comment:

1. There are some reviewer comments which remain - see end of email. Please address them and amend your manuscript accordingly.

The authors’ answer:

I have revised my manuscript according to the reviewer’s new comments. Thanks for their scrupulous review.

2. We note the addition of new authors since the original submission of the manuscript.

The authors’ answer:

I provided the form in the last submission. The form will be re-sent you.
3. Please note that all manuscripts must contain all the following sections under the heading 'Declarations'. The Declarations should follow the Conclusions section, and be before the References.

The authors’ answer:

The declaration has been added before the references, including the follow parts, 

Abbreviations

Ethics approval and consent to participate

Consent for publication

Availability of data and material

Competing interests

Funding

Authors' contributions

Acknowledgements

4. There is currently an instance where Table 5 is mentioned, but no Table 5 has been included in your manuscript. Please amend this reference to the table, or re-upload Table 5 (if relevant).

The authors’ answer:

We are so sorry for the error. The Table 5 has been revised as Table 4.