Reviewer's report

Title: Birth and Developmental Correlates of Birth Weight

Version: 2 Date: 29 October 2012

Reviewer: Andrea F de Winter

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The authors have improved the manuscript by choosing another focus. However, I still have several concerns.

1. Due to the small n ELBW and VLBW were excluded in the analyses. I would not mention those groups in the abstract.

2. The sentence describing the purpose in the introduction and the last sentence in the discussion (this study is the first step into examining …) have different meanings.

3. In the first sentence of the method section the larger study is introduced. The authors state that the response rate was 1000. However, the response rate is the result of dividing the number of people who participated by the total number of people in the sample who were eligible to participate.

4. The analyses were restricted to those for whom data (e.g. birth weight) were available. I would reformulate the sentence “the response rate for the current study was lower …..”.

5. The first question in Table 1 is: “Full term?” Here they wrote down the child’s birth weight. Did this question introduce relatively more missing data among (early) preterm born children? Are there (significant) differences among children with and without information on birth weight (given the larger sample of 1000 children)? For example do they differ with respect to the prevalence of prematurity or intensive care hospitalization?

6. In the method-section (analyses) birth weight is mentioned as main dependent variable. A birth weight category is an independent variable. Furthermore, in one single sentence birth weight differences, birth history and birth weight categories are used. This makes it difficult to understand the analyses. For example, birth history in Table 1 does contain several variables. Please describe all relevant variables in the method section.

7. How was SGA and LGA defined? For example did you use growth charts to define SGA?

8. The linear regression analyses are not clearly described in the method section. Furthermore, predicting birth weight (dependent variable) from birth weight category and onset ages for developmental milestones seems odd. Birth weight and birth weight categories are based on the same information. Birth weight could be a predictor of developmental milestones later in life.
9. Type of birth complications are reported but not the prevalence of the birth complications in Table 3a and 3B. It would be informative to add this information. Furthermore, I would anticipate on the fact that some people prefer informative tables. Although the (non)significant results are described in the text I would include it in the tables.

10. Birth weight groups and gestational age groups (SGA/AGA/ LGA) are often not very homogeneous. I would expect that the lower birth weight in the SGA group with complications is strongly related to prematurity, whereas the SGA children without complications are less premature children or full term born children. This could also be the explanation for the finding that higher birth weight was associated with sitting independently for SGA and AGA. It might be more relevant/ informative to describe different subgroups of birth weight categories (taking into account prematurity and SGA/AGA/LGA) for the developmental milestones than presenting the results for birth weight categories and gestational age classification separately? Due to potential heterogeneity in the birth weight groups and gestational groups I am not sure if the discussion and conclusion are fully supported by the data.

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

**Quality of written English:** Acceptable

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