Author’s response to reviews

**Title:** Factors associated with early introduction of complementary feeding and consumption of non-recommended foods among Dutch infants: the BeeBOFT study

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Factors associated with early introduction of complementary feeding and consumption of non-recommended foods among Dutch infants.

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BMC Public Health

Dear Editorial Office,

Please find the revised version of the Manuscript ID PUBH-D-18-01404 entitled “Factors associated with early introduction of complementary feeding and consumption of non-recommended foods among Dutch infants (Revised title)”. We would like to thank the editor and reviewers for thoroughly evaluating our manuscript, and providing us with constructive feedback. Each suggestion and comment made by the reviewers is addressed in this response letter. The changes made to the manuscript are
indicated in the text by highlightings. We also corrected some typographical errors in the text and the tables. All authors have read and approved the revised manuscript accompanying this letter. We hope this revision adequately addresses the reviewers’ comments and suggestions and we look forward to your response.

Yours sincerely, on behalf of all authors,

Hein Raat

Reviewer reports:
Anna Larney, PhD (Reviewer 1):

General comments: Very interesting, well-written paper. Analyses are clear. Tables of results are clear as well.

Other comments:
1 The title should give an idea to readers the study population, so could make it "Factors associated..... of non-recommended foods among Dutch infants"
Authors’ reply:

1) We thank the reviewer for this suggestion. We have adapted the title accordingly: “Factors associated with early introduction of complementary feeding and consumption of non-recommended foods among Dutch infants”.

2 Reviewer finds the comment by the Medical ethics committee odd, but we can take this as ethical approval for the study.

Authors’ reply:

We revised the sentences regarding the ethnical approval for our study by the Medical Ethics Committee of the Erasmus MC.

Method, Page 5, line 138:
“The Medical Ethics Committee of the Erasmus University Medical Centre reviewed the research proposal and concluded that the Dutch Medical Research Involving Human Subjects did not apply to this research proposal. The Medical Ethics Committee therefore had no objection to the execution of this study (proposal number MEC-2008-250)”

3 Background lines 87-91-should indicate the country and study population among whom the study was done.

Authors’ reply:
We added the country and study population in the Background line 87-91 according to the reviewer’s suggestion.

Background, Page 4, line 109
“Therefore, the present study aimed to investigate factors associated with inappropriate complementary feeding practices, including early introduction of complementary feeding, and the consumption of non-recommended foods including sweet beverages and snack foods, in a population-based sample of parents and children from the Netherlands.”

4 Positive practices among infants in day care is interesting. One would have expected the opposite. Day cares in Netherlands must be doing something right that points mothers in the right direction for infant feeding.

Authors’ reply:
With regard to findings on day-care attendance on complementary feeding practices, we currently have no conclusive explanation. We call for further studies to investigate the role of day-care attendance on infant feeding practices. In the discussion part of the manuscript, we added some additional thoughts on these specific results.

Discussion, Page 13, line 420.
“With regard to social care factors, we found that infants who attended day-care were less likely to receive complementary feeding early, and were less likely to consume non-recommended foods frequently. Previous studies conducted in other countries have found no association between day-care attendance and early introduction of complementary feeding [32]. Differences in the overall child-care systems in different countries (for example, different policies, social norms), might have influenced the findings. Consistent with our study, a previous study in the Netherlands suggested that day-care attendance is associated with less unhealthy lifestyles of young children [44]. It has also been reported that day-care attendance in the first year of life is associated with better general health and lower risk of overweight and obesity of the children across the age of 1 to 8 years in a birth cohort from the Netherlands [59]. The association of day-care use and more favourable infant feeding practices in the present study and more favourable lifestyles and general health of children found in previous studies might reflect other characteristics of families using day-care facilities. In our study, the mothers of children who attended day-care at age 6 months were more often higher educated, employed, and less often overweight. We recommend further studies to investigate the role of day-care attendance on children’s healthy lifestyles and health outcomes.”

Reviewer 2 (Reviewer 2):

REVIEWER COMMENTS FROM REPORT: This is an interesting study that could contribute to the research in this field with some revisions.

REQUESTED REVISIONS:
1) First, it's important to place the study, the context is not given until the Discussion section; up to that point one doesn't know in which continent or nation this is located. Similarly we need context for BeeBOFT study, as this may not be known to the reader. Similarly, the concept of a "youth health care team" needs to be explained (in general, the paper is lacking adequate context).

Authors’ reply:
We thank the reviewer for pointing out these missing elements. To address these concerns, we added
In the Background, page 4, line 110, we added information about our study population and country. (please see author’s reply for reviewer 1 comment 3). In the Method part, we revised the text to include more information on the BeeBOFT study and about the concept of a youth health care team.

Methods, Page 4, line 115:
“This study is a secondary data analysis using data from the BeeBOFT study, which is a population-based randomized controlled trial for the primary prevention of overweight among younger children (0~3 years) in the Netherlands [36]. A total of 10 Youth Health Care (YHC) organizations participated in the BeeBOFT study, including 51 YHC teams, covering both urban and rural areas in the Netherlands. In the Netherlands, YHC is a free program for monitoring children’s health and development, and providing health promotion and disease prevention at set ages. Approximately 95% of parents in the Netherlands participate in this program [37]. Each YHC organization serves a region of the Netherlands, and each YHC team within an organization serves one or more municipalities of the region [37]. A team is comprised of a physician, nurse, and assistant [37]. The 51 YHC teams were randomly allocated to 3 study arms, the “BBOFT+” intervention (17 teams), the “E-health4Uth” intervention (17 teams), or the control group (17 teams).”

2) Also, the Background should include something more specific in terms of a research frame of reference for the Netherlands, or at least, that region of Europe. Many of the references cited for previous studies, for example, are from US based or other work - why would one assume this is the same in the Netherlands?

Authors’ reply:
To address the reviewer’s concern on previous research from the Netherlands in the Background, we added more background information about the guideline on infant complementary feeding practices in the Netherlands (page 3, line 64), and gaps in current research on infant complementary feeding practices in the Netherlands (Page 3, line 75, and page 4, line 98).

Page 3, line 64:
“In the Netherlands, the Youth Health Centre suggests that breastfed infants can receive ‘small bites’ of complementary foods between age 4 and 6 months [4].”

Page 3, line 75:
“To our best knowledge, no study has thus far reported on the prevalence of introducing complementary feeding before 4 months in the Netherlands.”

Page 4, line 98:
“Furthermore, we could identify only one study performed in the Netherlands on factors associated with inappropriate complementary feeding practices [28], and this study was not able to assess factors associated with the introduction of complementary feeding before child age 4 months [28]. Infant complementary feeding practices have been found to differ between countries despite, in general, comparable recommendations as to the age of introduction of complementary feeding [35]. With regard to the development of population-specific strategies, it is important to explore factors associated with complementary feeding practices in different settings.”

3) It is a little confusing also regarding who did what. Is this a secondary data analysis? It seems that way, but it's not quite spelled out. If the Ethics review board determined it's not human subjects research, then it must be a secondary data analysis, otherwise it seems like human subjects research -
could the authors clarify that?

Authors’ reply:

The present study is a secondary data analysis, using data from the ‘BeeBOFT study’, we have revised the methods part.

Method, Page 4, line 115:
“This study is a secondary data analysis using data from the BeeBOFT Study, … “

4) It also states who funded the BeeBOFT study, but that those funds did not support this research(?). If so, who did, or was there no dedicated funding for this study?

Authors’ reply:

We revised the funding statement of our study.

Funding statement, Page 14, line 484:
“The BeeBOFT study was funded by a grant from ZonMW, the Netherlands Organization for Health Research and Development (grant number 50-50110-96-491). LW is supported by China Scholarship Council(CSC) PhD Fellowship for her PhD study in Erasmus MC, Rotterdam, the Netherlands. The scholarship file number is 201506220176, CSC URL: [http://www.csc.edu.cn/]. The funding sources had no role in study design and conduction, data collection and analysis, decision to publish, or preparation of the manuscript.”

5) The authors state that the last 'response category' (P5) was 'over 5 months' but 1 of the outcome categories is 'over 6 months', could you clarify this discrepancy? It's important due to the WHO guideline.

Author’s reply:

We were not able to precisely estimate the proportion of children who were introduced to complementary feeding after 6 months, as we did not have an answering category of ‘over 6 months’ in the questionnaire, but based this on the age of the child at the time the parents completed the questionnaire. We revised the text to address the reviewer’s comment.

Method, Page 5 line 171:
“The response categories were: “<1 month”, “between 1-2 months”, “between 2-3 months”, “between 3-4 months”, “between 4-5 months”, “older than 5 months”, and “never given”. Response categories were collapsed to create a new variable displaying the timing of introduction of complementary foods. The variable had four categories: ‘<4 months’, ‘between 4-5 months’, ‘between 5-6 months’, and ‘>6 months’. The category ‘>6 months’ consisted of those parents choosing ‘never given’, because the age of children at the moment when the questionnaire was completed was on average 6.35 months, SD=0.66.”

Discussion, page 11, line 361:
“In the present population-based sample of parent-child dyads from the Netherlands, 21% of the infants were introduced to complementary feeding before the age of 4 months, and 38% of the children were introduced to complementary feeding after 5 months. Less than 2% of the infant did not receive any
complementary feeding at the age of questionnaire measurement (mean age =6.4 months). Although we were not able to precisely estimate the percentage of children who were introduced to complementary feeding after 6 months, we can postulate that the percentage was lower than that in a cohort of infants born between 2002 and 2006 in the Netherlands (i.e. 38%) [28].”

6) The breastfeeding question was not a standardized or recommended question; ideally, we want to know initiation (any breastfeeding) and duration of exclusive breastfeeding - just asking about breastfeeding is likely to weaken any associations as 'breastfeeding' without a clear definition is too broad to be of great use as a determinant. Can you tell us anything about standardization for the other questions?

Author’s reply:

We thank the reviewer for this comment. For the breastfeeding question, we added more details in the Methods part, Page 7, line 232:

“The duration of breastfeeding was assessed in the questionnaire at the infant’s age of 6 months, by asking parents whether they have started breastfeeding (yes, no), and how old the baby was when the mother stopped breastfeeding (answering categories included within 2 weeks, between 2 and 4 weeks, between 1 and 2 months, between 2 and 3 months, between 3 and 4 months, between 4 and 5 months, older than 5 months, and still breastfeeding). The duration of breastfeeding duration was categorized into “no breastfeeding”, “breastfeeding for less than 2 months”, “breastfeeding for 2-4 months”, or “breastfeeding for 4 months or longer”. 

Although we were not able to measure duration of exclusive breastfeeding, our study has allowed us to conclude that not initiating breastfeeding as well as shorter duration of breastfeeding are predictive of inappropriate infant complementary feeding practices. We can postulate that the association with inappropriate could be stronger if we used duration of exclusive breastfeeding.

For the other question, we mentioned the origin of the questions we used in the Method part:

Method, Page 8, line 225:

“Maternal depressive symptoms were assessed using the 10-question Edinburgh Postnatal Depression Scale [43].”

Method, Page 8, line 231:

“Parental beliefs/perceptions about infant characteristics, feeding and infant weight were assessed. These items are based on a previous study investigating parental views on child overweight related behaviours [44].”

Method, Page 8, line 238:

“Infant temperament, e.g. soothability, distress to limitations, and distress to novel food, was measured using subscales from the Infant Behaviour Questionnaire [45]. The choice of subscales was based on previous research on infant temperament and infant feeding [33].”