Author’s response to reviews

Title: Baseline Diet Quality of Predominantly Minority Children and Adolescents from Households Characterized by Low Socioeconomic Status in the Childhood Obesity Prevention and Treatment Research (COPTR) Consortium

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Author’s response to reviews:

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Dr. Neyestani

Editor, BMB Nutrition

Dear Dr. Neyestani;

On behalf of my co-authors and myself, I am resubmitting our manuscript entitled Baseline Diet Quality of Predominantly Minority Children and Adolescents from Households Characterized by Low Socioeconomic Status in the Childhood Obesity Prevention and Treatment Research (COPTR) Consortium” (NUTN-D-19-00054) for review. All of the co-authors have reviewed and approved the revisions to the manuscript. The reviewer comments are in bold print and followed by our response.
Reviewer: 1

1. For methodology, please provide details on the training of the dietary interviewer (were they certified NDSR interviewers? were they bilingual for the bilingual settings?) How were discrepancies between child and parent reporting handled? Was there a pattern to when the recall was done in-person versus telephone? (e.g. was the first recall in-person and second by phone?) Were there differences in reporting by in-person vs. telephone (e.g. fewer calories with telephone?)

We have added additional details to the 2nd paragraph on page 5 of the revised manuscript. Briefly, all interviewers were NDSR trained and certified. Bilingual (English/Spanish) interviewers conducted the dietary recall in Spanish if requested. In older children, the child self-reported their intake. Their parent only assisted if they need help (e.g. providing details on how a food item was prepared). The first recall was conducted in person (except for GROW study) and the second (except for NET-Works) and third recalls were conducted via telephone. No differences between data by method of data collection.

2. For results, no mention of calories intake is presented so there is no way of comparing intake levels. Please provide mean intake in Table one for each cohort.

In the results section, p. 8, third paragraph, line 3, the sentence that focuses on comparing scores between white and other children is awkward as you state the mean, but then discuss the change in mean. So can replace with: "With respect to the HEI score, white children scored a mean of 5 points (95% CI: 1.4, 8.6) higher than non-Hispanic Blacks" ..... Do same for other comparisons.

We have added the mean total intake per study to table 1. We have edited the sentences in the results sections (pages 8-9) as suggested by the reviewer.

3. The text in the discussion section can be broken down with subheadings--e.g. protein sources, fruit and whole fruits, etc. The way it reads now is too dense.

We have added subheadings to the discussion section as suggested by the reviewer.

4. Lastly please include a statement about how these results will be used in the RCTs.

The RCTs (GROW, NET-Works, IMPACT and GOALS) were started before baseline data collection was completed and analyzed. The data were not used in the RCTs but can be used to inform future RCTs. We did not add a statement to the revised manuscript but did remind reader
that the paper presents baseline diet data. A longitudinal paper is planned to examine changes in HEI score after the 3-year intervention.

5. A sub-heading could also focus on how the difference in the background one study enrolling primarily African-American vs. others having Hispanic children (are they mostly Mexican except in Minneapolis?) affect the disparities in diet quality.

We have added racial/ethnic subheading to the discussion section as suggested by the reviewer. The table below summarizes the country of origin for the Hispanic children each study. We have added details on country of origin to the discussion section (page 13).

<table>
<thead>
<tr>
<th>NET-Works</th>
<th>GROW</th>
<th>IMPACT</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>15%</td>
<td>74%</td>
<td>85%</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>56%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Cuba</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>29%</td>
<td>23%</td>
<td>15%</td>
</tr>
</tbody>
</table>

6. There are several very general statements that need to be more specific- for example on p. 11 there is a statement about lower diet quality scores in African American children compared to Hispanics- please specify which Hispanic heritage group --there is a diversity of Hispanic groups in the US- is this for Mexicans or Puerto Rican Hispanics?

See #5 above for distribution of Hispanic heritage group. We have added a sentence to the limitations (page 13) about grouping all Hispanics in one group. We also briefly describe the country of origin most Hispanics represent from each study.

Please remove sentence stating: "Furthermore it is important to remember that the dietary intake of most American children is not in the high quality range, yet African American children tend to score even lower."

We have edited the sentence to include NHANES data and reference to support the sentence (page 12).

This is too general a statement. Please compare children from same contexts (children in inner urban with same).

We have added additional comparisons and references (page 12).
Here is another statement that is too general - please be more specific about the particular situation from the reference: "There was a non-linear relationship between family income and diet quality with children in the lowest income group and those in the highest income group having higher diet quality than those in the middle groups."

We have added the reference for this sentence (page 12).

7. On p. 10, lines 1-4- is awkward. I think you mean: "In general both component scores (greens and beans and total vegetables) and overall HEI score could potentially improve with greater consumption of greens and beans." Please change.

We have revised this sentence (page 10) as suggested by the reviewer.

8. In the Discussion section please discuss the impact of seasonality and how that might have affected reporting. Were recalls in summer/fall higher in fruits and vegetables? Were the recalls reported throughout the year?

We did not examine seasonality in this manuscript and have added that to the limitations (page 12). Dietary recalls were collected in every month for all studies except IMPACT (no dietary recalls collected in January or February). This information was also added to the revised manuscript (page 12).

9. Lastly how do these results compare with results from other studies done on children from this range of ages?

See response to #6. We elected to compare our findings to national data (NHANES) given the limited amount of data from population based studies in children.

Reviewer 2.

1. In the line 28, please mention the using statistical analysis at the end of the methods of abstract.

We have added that we used linear regression to the abstract (page 2).
Methods

2. It's better that materials and methods section was separated by subtitles such as, Study design and participants, Dietary assessments, Covariates, Statistical analysis.

We have added subheading to the methods section as requested by the reviewer.

3. In line 60 please more explain about the criteria for selecting the child in households with more than one eligible child

We have revised the sentence in the manuscript. If the household had more than one child that met the eligibility criteria (e.g. two children between 7 and 11 years of age above the 85th BMI percentile) then only one child was randomly selected to be in the study.

Results

4. In page 21, line 34 & 38, please use the reference for Index child BMI status categories and Index parent BMI status categories.

In table 1, I have added the references to the footnotes for child and adult BMI status categories.

5. References

1. Please update the references

Child and adult BMI status categories references were already cited in the reference list.

Should you have any questions, please do not hesitate to contact me. Thank you in advance for your time and I look forward to hearing from you in the future.

Sincerely yours,

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