Author’s response to reviews

Title: The mediating effect of dietary patterns on the association between mother’s education level and the physical aggression of five-year-old children: a population-based cohort study

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Version: 1 Date: 01 Apr 2020

Author’s response to reviews:

Ref: The Reviewers, BMC Pediatrics March 16, 2020

Subject: Revision and resubmission of manuscript ID BPED-D-20-00159

Dear Editor,

We thank you for this opportunity to revise our manuscript, and the reviewers for their careful and thorough reading of this manuscript. We are pleased to resubmit the revised version entitled "The mediating effect of dietary patterns on the association between mother’s education level and the physical aggression of five-year-old children: a population-based cohort study" (Manuscript ID BPED-D-20-00159) for further consideration for publication. We are very thankful for the many useful comments provided by the reviewers that have helped us improve the quality of this manuscript. We have made substantial changes in several parts of our manuscript, where all changes have been underlined, in order to reflect most of the suggestions provided by the reviewers. We have made all necessary corrections and have attached our point-by-point responses to the reviewer's comments with this revision. In addition, as can be seen in this revised paper, the written English has been checked and corrected by a native English speaker with experience proofreading journal manuscripts.

We hope that the revised manuscript can be published in BMC Pediatrics following these significant changes

Sincerely yours,

Ching-I Lin, Ph.D. (Corresponding Author)
Reviewer Comments, Author Responses and Manuscript Changes

–Response to Reviewer 1, Matthew Landry, PhD, comments

Point 1: Thank you for the opportunity to review this manuscript. The authors provide a generally well written manuscript that details the mediating effect of dietary patterns on maternal education level and physical aggression among five-year-olds using data from a nationally representative sample of Taiwanese children. The authors provide good justification for the need of the study and provide context for how this study fits into the existing literature in the area. Additional details within the methods are requested to provide additional context for how the study was conducted.

[Response 1]

We appreciate your insightful comments and constructive suggestions on our manuscript. We have studied your comments carefully and have tried our best to revise our manuscript accordingly.

Point 2: Line 104 - There are several papers on the methodology for the TBCS, suggest referencing some of this literature.

[Response 2]

Thank you for this suggestion. We have referred to some references which have been added on line 108 (references 23 and 24) in the revised manuscript as follows:

Point 3: Line 137 - It is unclear if education was dichotomous or it was a continuous scale of 0-17 with 18 different groups. If it's the later, were the sample sizes within each of the different groups large enough for adequate analysis?

[Response 3]

Thank you for this reminder. We repeated the analysis by categorizing the education into three levels, namely the low-level (junior high school and below, score: &lt;= 9), middle-level (senior high school, score: 10 ~ 12) and high-level (college and above, score: &gt;=13). The variable is treated as a dummy variable and the results can only represent the indirect effects of each category relative to the reference category (i.e., the low-level) in the dummy coding scheme. The results largely replicated the findings presented. The education is indirectly associated with aggression via the two eating patterns (all p-values &lt; .001).
However, since the score in this study represents the number of years of education the mother completed, the result will be more informative if we consider education as a continuous variable. The result implies that we can encourage mothers to have one year of education instead of completing a stage of education, based on the results of this study which suggest that an increase of one year of education can decrease/increase a certain level of unhealthy/healthy eating behaviors.

The following details (underlined) regarding the measurement of education has been added: “One score unit represents one year of education the mother completed. For example, score 11 means the mother completed the second year of high school education but did not graduate from high school, and score 12 means the mother graduated from high school (lines 149 - 152)”.

Point 4: Line 141 - Can the authors provide context for why the referent frame of "in the previous week" was used?

[Response 4]
We thank the reviewer for this question. We have carefully reviewed the wording of this question in the Chinese-version questionnaire and considered that “in the previous week” was mistranslated. The question should be translated as follows: “How many times does your child eat the following foods a week?” The options included often (never (score=0), less than once per week (score=1), once or twice per week (score=2), three to five times per week (score=3), and almost every day or every day (score= 4). Correction has been made accordingly and added on lines 155-158 in the revised manuscript.

The length of the recall period, “a week,” was chosen based on two reasons. First, according to the literature (Clarke et al. 2008), one week is the perfect recall period for health issue related survey design. Second, foods consumed in 7 days can represent general food intake habits since 7 days legitimately include weekdays and the weekend. Therefore, some semi-quantitative food frequency scales use “the past 7 days” as the recall period (Palacios et al., 2017; Eck et al., 1991). Hence, in the present study, the respondents were asked to complete a short dietary questionnaire for a 7-day recall period in order to capture their usual consumption of food groups.

References:


The authors should provide further context for how these 11 food groups were chosen? Are these groupings too broad?

[Response 5]

We thank the reviewer for raising this issue. The 11 food groups included in the present study are as follows: (1) meats, (2) seafood (such as fish and shrimp), (3) beans/bean products, (4) eggs, (5) grains/starchy roots, (6) vegetables, (7) fruits, (8) dairy products, (9) burger/pizza/fried chicken, (10) candy/cookies/cakes, and (11) beverages/Coca-Cola/Soft drinks. Groups 1-8 were chosen according to the Daily Dietary Guidelines for Taiwanese that is produced by Taiwan’s Ministry of Health and Welfare. The Guidelines can also be used as a tool for nutritional education programs to help Taiwanese meet their healthy eating goals. In the Guidelines, foods are grouped together because they provide similar nutrients essential for life and growth. On the other hand, groups 9-11 were chosen based on the popularity of snacks consumed by Taiwanese children. A report by Taiwanese scholars indicated that the most popular snacks include cakes, sweet beverage, candies, fried starch (e.g., fried chicken, French fries), and chocolate (Lin et al., 1999). It has been shown that Taiwanese children consume unhealthy fatty snacks and/or sugary drinks more frequently than vegetables and fruit (Lin et al., 2007; Tu et al., 2007). Thus, the three food groups were categorized to represent the most frequently consumed snacks among Taiwanese children. The heading of the subsection (“Dietary patterns”) has been revised on line 153 as follows: “Food Groups for Dietary patterns”.

References:


With the references provided I'm not understanding why the food groups chosen were the final ones. Particularly for the three unhealthy food items. The two studies referenced don't reflect the intake of Taiwan.

[Response 6]

We have removed the original references and replaced them with the following references (26 and 27) on line 163 in the revised manuscript to support the rationale of the food groups chosen in the present study.

According to the research of Taiwanese scholars (Pan et al., 2011), the intake of instant noodles, cakes, biscuits, sweets and sugary drinks increased from 1993 to 2008. The unhealthy food items listed in the abovementioned food groups 9-11 of the present study were characterized as common unhealthy snacks/foods among Taiwanese children. These food groups represent an unhealthy eating pattern, i.e., high-fat-sugar-salt snacks/foods (also known as the processed foods or westernized foods pattern), which are typically associated with several chronic diseases such as obesity. Besides, based on the evidence obtained from the results of Nutrition and Health Surveys in Taiwan (Pan et al., 2011) and the relevant studies (Lin et al., 1999; Lin et al., 2007; Tu et al., 2007), Taiwanese eating habits have shifted from the traditional style toward a western diet constituting excessive energy-dense foods rich in fat and simple sugars. The available evidence therefore enables us to use those food groups as the basis of the evaluation of the overall eating quality in the present study.

References:


Point 7: Line 142 - Why weren't equal numbers of "healthy" and "unhealthy" groups used?

[Response 7]

We thank the reviewer for the question. As mentioned above, the healthy food groups were chosen on the basis of the Daily Dietary Guidelines for Taiwanese, whilst the unhealthy groups were chosen according to the evidence of NASHIT (Pan et al., 2011) and the relevant studies (Lin et al., 1999; Lin et al., 2007; Tu et al., 2007) concerning the linkage between unhealthy diets and chronic diseases. Actually, unequal numbers of healthy and unhealthy food groups were presented in other studies which also used exploratory factor analysis to extract dietary patterns (Rashid et al., 2018; Ryman et al., 2014). In addition, we have added the following sentence to the revised manuscript (lines 163-165): “These groups of foods were used for the Exploratory Factor Analysis (EFA) to extract dietary patterns based on the variable-centered approach.”

References:


at age 5 in the Amsterdam born children and their development (ABCD) cohort. BMC Public Health, 18(1), 115. https://doi.org/10.1186/s12889-017-5014-0

Point 8: Line 158 - I understand the author's rationale for using dietary patterns rather than single nutrients; however, with only two dietary patterns following EFA, I don't feel like they truly encompass usual intake. Can the authors speak more to this?

[Response 8]

We understand the reviewer's viewpoint here that the two data-driven dietary patterns might not directly represent all kinds of foods consumed by the participants in Taiwan. However, the purpose of the dietary pattern analysis in our study was not to calculate the nutrient intake of the preschoolers. Indeed, the central aim of the present study was to demonstrate the putative mechanism, i.e. dietary patterns, mediating the associations between mother’s education level and the physical aggression of their children. The food groups were used to represent the common healthy and unhealthy foods consumed by the Taiwanese five-year-old children. In addition, since the Taiwan Birth Cohort Study is not a project only focused on nutritional issues, the space for items to measure food frequency is limited.

Two identified dietary patterns were derived from the sophisticated statistical procedure, namely Exploratory Factor Analysis (EFA), by the use of the data collected from the above-mentioned short-term dietary questionnaire. The results were similar to the results of Ambrosini et al.’s study which retrieved two dietary patterns, the healthy and the Western pattern, among Australian adolescents (Ambrosini et al., 2014). We have added the following sentences in the discussion section to better explain and to make a clearer link among the results of this study, the previous literature and the statistical analysis applied on lines 296-300 in the revised manuscript. “Based on our EFA result, two dietary patterns were extracted which are similar to the results of Ambrosini et al.’s study which retrieved two dietary patterns, the healthy and the Western pattern, among Australian adolescents [32]. The food groups used for EFA were selected by the research team following the instrument development process and can represent common foods rather than all kinds of foods among preschoolers.”

Furthermore, factor analysis including EFA has been widely employed in identifying dietary patterns (Ambrosini et al., 2011; Ryman et al., 2014). Besides, the employed dietary questionnaire, which is a type of dietary assessment instrument, is able to reflect the foods commonly consumed in our study population because the listed food items in the questionnaire were selected according to the Daily Dietary Guidelines for Taiwanese and the aforementioned relevant research.

References:
Point 9: Line 166 - As physical aggression measurement is a critical component of the study, I would like the authors to elaborate on how the measurement was adapted.

[Response 9]
The items for measuring physical aggression were developed based on the studies conducted by Professor Tremblay’s research team. The references are listed as follows:


The questions for measuring physical aggression were developed following the same procedure of developing the whole questionnaire. We have added details about the instrument development in the Methods section to the revised manuscript (lines 135-144) in order to describe the processes of the instrument development of TBCS as follows: “The TBCS instrument was developed according to the following process. First, the first version of the questions for measuring each concept, such as physical aggression, dietary pattern and mental distress, etc., was developed based on previous literature. Second, the first-version questionnaire was reviewed by experts to ensure its face validity and was revised according to the reviewers’ comments. Third, the revised-version questionnaire was used for the pilot study (n=1,620) for pre-testing all the questions, and the participants’ comments and feedback were further collected to revise the questionnaire into its final version. In addition, some concepts, such as aggression and mental distress, were excerpted for a small group two-week test-retest reliability construction (n=18).” We have also provided additional information about the two-week test-retest reliability on lines 173-174 as follows: “The correlation coefficient of two-week test-retest reliability is 0.82.”

Point 10: Line 172- The authors utilize an adapted questionnaire which to my understanding has not been assessed for content validity or reliability within even a similar population. If details are available regarding this should be mentioned. If they are not available, the authors should speak to this in the limitations.

[Response 10]
We have added details to describe the process of the instrument development of TBCS. Please refer to the answer to the previous comment (the response to point 9) or to lines 135-144 in the revised manuscript.

Point 11: Line 177 - Parental marital status was used from what age of the child? It is possible that this could have changed between years 3 and 5.

[Response 11]
Parental marital status was measured at age 5. We have added this information on line 179 to the revised manuscript.
Point 12: Line 305 - I have several thoughts following the discussion, is daycare common in Taiwan? Or who is the primary caretaker of children at ages 3 and 5? Out of home care could influence dietary intake as well as physical aggression.

[Response 12] The majority of TBCS reporters are mothers (94.62%), and 97.01% of children did go to kindergarten or daycare center. Less than 5% of the preschoolers did not go to daycare, which implies that the variation of this variable is too small. In addition, the food provided in daycare or preschooler’s behaviors manifested in daycare which were not known by mothers were not recorded in the project. Therefore, we have added a sentence regarding this to the “Strength and limitation” section in the discussion (lines 349-351) as follows: “Furthermore, since 97% of children went to daycare in the day time, the information about their problem behaviors and food consumption while in daycare might be unknown to their mothers.”

Point 13: Line 305 - Are there any details about if these families had other children? I believe that would be a strong confounding factor.

[Response 13] Yes, 79.6% of the preschoolers have siblings. We added having siblings or not as a control variable to the mediation model and the result shows that the estimated coefficients of direct and indirect effects among maternal education, dietary patterns, and physical aggression were all exactly the same as the previous mediation model. Thus, having siblings or not is not a confounding factor in this study.

Point 14: Line 321 - The authors should comment on the possibility for under- or over-reporting of socially undesirable answers for physical aggression and dietary habits especially within a face-to-face interview.

[Response 14] Thank you for this reminder. We have included this information (lines 351-353) in the “Strengths and limitations” section of the revised manuscript as follows: “Last, the study cannot exclude the possibilities that the reporters might have underreported the frequencies of preschoolers’ physical aggression and unhealthy dietary behaviors.”

Point 15: Line 321 - The authors should comment on how this study only examined two dietary patterns and that these dietary patterns may not be fully representative of the typical diet.

[Response 15] As explained previously, two identified dietary patterns were derived from the sophisticated statistical procedure, EFA, by the use of the data collected from the above-mentioned short-term dietary questionnaire. The results were similar to the results of Ambrosini et al.’s study which retrieved two dietary patterns, the healthy and the Western pattern, among Australian adolescents (Ambrosini et al., 2014). The food groups might not represent all kinds of food consumed by preschoolers, but they can represent common foods consumed by preschoolers. Thus, we have
added an explanation to the discussion section of the revised manuscript to clarify this point. Please see lines 296-300.

Point 16: Table 1: For HSS food groups the authors have "almost every day" what does this equate to? Different terminology is used within the methods. Does this equate to "three to five times"?
Table 1: Please include a footnotes that includes any abbreviations used within the table.

[Response 16]
The option was an error. We apologize for this error. Instead, the 4th option should be “almost every day or every day.” The sentences have been amended on lines 157 and 540 (Table 1). A footnote has been added.

–Response to Reviewer 2, Elma Izze da Silva Magalhães, comments
Overall comments from Reviewer 2: The theme of the manuscript is relevant and original, however the study has some important methodological weaknesses that prevent me from accepting it as presented. My main concern is in relation to the quality of the data provided by the instruments used to measure the outcome and mediator. The authors also need to make a more adequate statistical analysis to assess the association between exposure and outcome and covariates. In addition, more caution is needed in the interpretation and conclusion about the findings of the mediation analysis, since the observed effect was low. Below are detailed comments for each section of the manuscript.

[Response]
We appreciate your insightful comments and constructive suggestions on our manuscript. We have studied your comments carefully and have tried our best to revise our manuscript accordingly.

Point 1: Title: It does not make it clear by whom physical aggression is practiced. Only when reading the introduction that it is understood that it is the aggression practiced by the child himself. So, I suggest that the title be reformulated, so as not to confuse the reader;
[Response 1]
Thank you for this suggestion. The title has been revised as follows: “The mediating effect of dietary patterns on the association between mother’s education level and the physical aggression of five-year-old children: a population-based cohort study.”

Point 2: Abstract:
- In background, the authors focused more on the association of the dietary pattern with the outcome and not in their role how mediator;
- In methods, to indicate the study design;
- In the results, the authors presented only p-value. It would be important to include the assessed association and mediation estimates;
The conclusions is very large. The authors should be more direct and concise;

[Response 2]
We thank the reviewer for these suggestions. The Abstract section has been revised accordingly and the changes have been underlined. Please refer to the underlined sentences in the Abstract section (lines 26-53) of the revised manuscript.

Point 3: Introduction: The last paragraph of the introduction contains items that should be in the methods ("in a nationally representative sample of 18,513 5-year-old children by applying a parallel multiple mediator model proposed by Hayes") and discussion ("The results 98 of this study will help understand the impact of different dietary patterns on young children's 99 physical aggression and also aid in the development of effective intervention and prevention 100 strategies targeting physically aggressive preschoolers") section. Relocate these items to the mentioned sections;

[Response 3]
We thank the reviewer for this suggestion. The two sentences in the last paragraph of the introduction have been removed (please see line 103).

Point 4: Methods
Point 4.1.- The authors did not present the eligibility criteria in "Participants" topic;
[Response 4.1.]
We have described the eligibility criteria of participants on lines 126-129 as follows: “This study included 19,721 subjects whose parents and primary caregivers completed the interview survey at 5.5 years old. We used their information which was measured at 6 months, 3 years old, and 5.5 years old. After excluding the participants with missing values, there were 18,513 participants (52.64% boys; 88.51% married parents) analyzed in this study (retention rate = 93.9%).”

Point 4.2.- Although the sample is large, I think that the variable maternal education has many categories. This can impact on statistical analysis, leading to spurious results. It would be better to recode it into fewer categories (bringing together categories of nearby education levels);

[Response 4.2.]
Thank you for this reminder. We repeated the analysis by categorizing the education into three levels, namely the low-level (junior high school and below, score: &lt;= 9), middle-level (senior high school, score: 10 ~ 12) and high-level (college and above, score: &gt;=13). The variable is treated as a dummy variable and the results can only represent the indirect effects of each category relative to the reference category (the low-level) in the dummy coding scheme. The results largely replicated the findings presented. Education level is indirectly associated with aggression via the two eating patterns.

However, since the score in this study represents the number of years of education the mother completed, the result will be more informative if we consider education as a continuous variable. The result implies that we can encourage mothers to have one year of education instead of completing a stage of education, due to the results of this study suggesting that an increase of one year of education can decrease/increase a certain level of unhealthy/healthy eating behaviors.

More details (lines 149-152) regarding the measurement of education have been added to the revised manuscript as follows: “One score unit represents one year of education the mother
completed. For example, score 11 means the mother completed the second year of high school education but did not graduate from high school, and score 12 means the mother graduated from high school.”

Point 4.3.- Is it not clear which instrument was used to assess children’s food consumption? Was a food frequency questionnaire adapted? Has it been validated? The use of an adequate and as accurate instrument as possible is essential for this study, since food consumption is the mediating variable tested in the manuscript;

[Response 4.3.]

We thank the reviewer for raising these points. We fully understand the reviewer’s viewpoint here. The food-grouping frequency questionnaire employed in the present study was developed by our research team and has been tested for validity.

This questionnaire has been validated through the processes described in the “Instrument Development” section on lines 135-142 as follows: “The TBCS instrument was developed according to the following process. First, the first version of the questions for measuring each concept, such as physical aggression, dietary pattern and mental distress, etc., was developed based on previous literature. Second, the first-version questionnaire was reviewed by experts to ensure its face validity and was revised according to the reviewers’ comments. Third, the revised-version questionnaire was used for the pilot study (n=1,620) for pre-testing all the questions, and the participants’ comments and feedback were further collected to revise the questionnaire into its final version.”

The employed short-term dietary questionnaire includes the following 11 food groups: (1) meats, (2) seafood (such as fish and shrimp), (3) beans/bean products, (4) eggs, (5) grains/starchy roots, (6) vegetables, (7) fruits, (8) dairy products, (9) burger/pizza/fried chicken, (10) candy/cookies/cakes, and (11) beverages/Coca-Cola/Soft drinks. Groups 1-8 were chosen according to the Daily Dietary Guidelines for Taiwanese that is produced by Taiwan’s Ministry of Health and Welfare. The Guidelines can also be used as a tool for nutritional education programs to help Taiwanese meet their healthy eating goals. In the Guidelines, foods are grouped together because they provide similar nutrients essential for life and growth. On the other hand, groups 9-11 were chosen based on the popularity of snacks consumed by Taiwanese children. A report by Taiwanese scholars indicated that the most popular snacks include cakes, sweet beverages, candies, fried starch (e.g., fried chicken, French fries), and chocolate (Lin et al., 1999). It has been shown that Taiwanese children consume unhealthy fatty snacks and/or sugary drinks more frequently than vegetables and fruit (Lin et al., 2007; Tu et al., 2007). Thus, the three food groups were categorized to represent the most frequently consumed snacks among Taiwanese children.


Two identified dietary patterns were derived from the sophisticated statistical procedure, namely Exploratory Factor Analysis (EFA), by the use of the data collected from the above-mentioned short-term dietary questionnaire. The results were similar to the results of Ambrosini et al.’s study which retrieved two dietary patterns, the healthy and the Western pattern, among Australian adolescents (Ambrosini et al., 2011).

We have added more information to make a clear link between the results of this study and the previous literature on lines 296-298. In addition, the food groups might not represent all kinds of food consumed by preschoolers, but they can represent common foods consumed by preschoolers. We have explained this point in the revised manuscript (lines 298-300) as well.


Point 4.4.- The data in Table 1 presented on page 7 should be in the results section;

[Response 4.4.]
Thank you for the suggestion. The data in Table 1 (lines 148-163 in the former version of the manuscript) has been moved to the first part of the “Results” section. Please see lines 217-233 in the revised manuscript.

Point 4.5.- Has the instrument used to measure physical aggression been validated? This has to be clear to the reader. A quality instrument to assess the outcome is essential to obtain reliable results in this study;

[Response 4.5.]
Yes, the instrument used in the present study has been validated. To make it clear to the readers, we have added a paragraph on “Instrument Development” (lines 135-144) in the Methods section to describe the process of the instrument development of TBCS as follows: “The TBCS instrument was developed according to the following process. First, the first version of the questions for measuring each concept, such as physical aggression, dietary pattern and mental distress, etc., was developed based on previous literature. Second, the first-version questionnaire was reviewed by experts to ensure its face validity and was revised according to the reviewers’ comments. Third, the revised-version questionnaire was used for the pilot study (n=1,620) for pre-testing all the questions, and the participants’ comments and feedback were further collected to revise the questionnaire into its final version. In addition, some concepts, such as aggression and mental distress, were excerpted for a small group two-week test-retest reliability construction (n=18).”
Point 4.6.- Why was the physical aggression variable continuously assessed in scores? Is there no cut-off point for the instrument used? It is important to clarify this;

[Response 4.6.] We thank the reviewer for this question. The items for measuring physical aggression were developed based on the studies conducted by Professor Tremblay’s research team. The references are listed as follows:


The variable is treated as continuous in the above literature. The aim of this study emphasized the linear associations among maternal education, dietary patterns and physical aggression rather than focusing on the clinical diagnosis of physical aggression in a general population of preschoolers. Since we have no other references to support the cut-off point of physical aggression, the physical aggression was considered as continuous in this circumstance. Nevertheless, we have rephrased the former sentence to make it clearer as follows: “The measurement of physical aggression for five-year-old children was developed with reference to the scale developed by Tremblay et al. [1] and Cote et al. [19]” (lines 167-168).

Point 4.7.- The authors mention in the topic "Physical aggression" that the physical aggression assessed was measured at 5 years of age. However, physical aggression at 3 years was also measured, according to the topic "covariates" and tables. Is it really necessary to include the variable at 3 years of age in the analyzes? Please justify it;

[Response 4.7.] We thank the reviewer for the question. Physical aggression at age 3 was controlled as the baseline factor in the model. When the baseline is included in the model, we are able to interpret the coefficients of interested variables as the associations between them and the physical aggression conditioning on the value of the baseline.

Point 4.8.- On page 8, line 176, the authors used the term "aggressive behavior" instead of "physical aggression". What does the instrument really measure? If the term can be used, please replace it throughout the manuscript, as I think it is more understandable;

[Response 4.8.] We apologize for the confusion that the term was misplaced. The instrument measures physical aggression. The term has been amended as “physical aggression” on line 178.

Point 4.9.- It was not specified which instrument was used to measure children's mental distress. Was it a validated instrument? The authors need to clarify this;
We have rewritten (lines 181-182 in the former version of the manuscript) by adding more information to clarify this point. The development process of the instrument for measuring children's mental distress is now included in lines 183-189 as follows: “Children’s mental distress scale was developed with reference to internalizing items of the Behavioral Assessment Scale for Children [1] and the Brief Problem Monitor-Parent Form [2]. To save space in the questionnaire, three questions, namely “Your child looks sad or depressed for no special reason,” “Your child feels fearful or anxious because of small matters” and “Your child worries about things not being well-done,” were selected and revised by some experts specializing in child psychology and the questions were rated on a 5-point scale (ranging from 1-5) at age 5 (Cronbach’s $\alpha=0.61$). The correlation coefficient of two-week test-retest reliability is 0.76.”

Point 4.10.- Why did the authors perform correlation analysis to assess associations? The correlation is not an ideal analysis for this type of purpose, it just shows how much one variable increases / decreases in relation to another. The authors could have used logistic or linear regression analysis;

The results of linear regression analysis are shown in Table 4. In Table 4, three linear regression models are demonstrated based on the three dependent variables, namely health dietary pattern (M1), HFSS dietary pattern (M2), and physical aggression (M3). The three linear regressions were also estimated simultaneously by the PROCESS macro which is an analytic method similar to path analysis to examine the mediation effects of dietary patterns between maternal education and the physical aggression of preschoolers. The correlation matrix will usually allow readers to see the linear associations between the studied variables in the PROCESS macro.

Point 5: Results: In Table 2, the authors do not present data on the relative frequency of the variables children's sex and parental marital status, as described in the methods;

Thank you for this reminder. Table 2 has been revised accordingly.

Point 6: Discussion: The quality of the instruments used to measure the mediating variable and outcome should be included in the study's limitations;

We have added a sentence to the limitation section according to the reviewer’s suggestion (lines 347-349) as follows: “Besides, the sample size for the two-week test-retest reliability for the measurement of aggression and mental distress is relatively small, although the coefficients of the reliabilities are quite acceptable (both $\gt; 0.7$).”

Point 7: Conclusions: The authors were very pretentious in the study's conclusions, since the mediating effect of the observed eating patterns was low. Therefore, authors need to be more cautious when interpreting results and to make their conclusions.
[Response 7]  
Following the reviewer’s suggestion, we have added a sentence to emphasize that only partial mediation effects were found. Please refer to the underlined sentence in the Conclusion section of the revised manuscript (lines 360-361).