Author’s response to reviews

Title: Dietary Quality linkage to Overall Competence at School and Emotional Disturbance in Representative Taiwanese Young Adolescents: dependence on Gender, Parental Characteristics and Personal Behaviors

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Version: 2 Date: 03 Jan 2018

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Editor Decision - Major Revision
NUTJ-D-17-00271R1

Dietary Quality linkage to Overall Competence at School and Emotional Disturbance in Representative Taiwanese Young Adolescents: dependence on Gender, Parental Characteristics and Personal Behaviors

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Nutrition Journal

Reviewer reports:

Reviewer #1:
1. Overall comments

The manuscript has been improved, however some previous comments have not been addressed and some further revisions are needed - mainly to the discussion section.

Response: Done.
Background

2. The aims and hypotheses are now clearer in the text. I would say lines 37-43 and the preceding background are now sufficient explanation in this regard - Figure 1 does not really represent the aims and I would not refer to here. Referring to Figure 1 at this stage in the paper is out of place as you are referring to your results before getting to the results section of the paper?

Response: Figure 1 has been moved to results and discussion and the text changed accordingly.

3. OC and OCS have been used interchangeably in the background and throughout the paper. Use one consistently - it should be OCS.

Response: OC is now referred to as OCS.

4. Line 20 - As suggested in the previous revision comments references 20 and 21 are not relevant or appropriate. Replace or remove this part of the sentence.


'BACKGROUND AND OBJECTIVES: Cognitive impairment develops with pre-diabetes and dementia is a complication of diabetes. Natural products like turmeric and cinnamon may ameliorate the underlying pathogenesis.'


'To determine incidence of dementia in type 2 diabetic (T2DM) patients, and whether there are adverse or favorable effects of oral agents (OA) in DM'

Response: References removed.
Measures

5. Line 47 - Here it is indicated that participants were aged 11-16 years. In the abstract participants were reported as 12-16 years? This needs to be clarified and corrected.

Response: Thank you. The abstract is now correct for age range (11-16 years). Line 47 has been corrected accordingly.

6. Line 54 - It is still not entirely clear who completed each of the different measures. The article abstract indicates that 'Parents provided family socio-demographics and students completed a behavioural and dietary questionnaire', while response to previous review comments indicates adolescents completed these face-to-face interviews. This detail needs to be clarified and added here and throughout the measures section.

Response: The sentence “Parents provided family socio-demographics and students completed a behavioural and dietary questionnaire' is correct. For greater clarity, the text has been changed where necessary regarding the following (lines 54-60):

NAHSIT comprises questionnaires administered by face-to-face interview of parents and students (including a food frequency questionnaire, 24-hour dietary recall, pubertal development, personal behaviors from students; and family socio-demographics from parents). Physical examination (including body composition, blood pressure) was conducted and plasma metabolic analytes obtained though venipuncture by a health care professional. Thus, the questionnaire covered both dietary and non-dietary health factors.

7. Line 77-78 - 'As previously described, the first six subscales were scored....' Previously described where? Please clarify or provide a reference.

Response: "As previously described, ..." refers to lines 76-83.

“The SAED consist of a total of seven subscales including OC considered in this study as OCS and six other subscales. These are: Inability to Learn (IL, 8 items), Relationship Problems (RP, 6 items), Inappropriate Behavior (IB, 10 items), Unhappiness or Depression (UD, 7 items), Physical Symptoms or Fears (PF, 8 items)), Social Maladjustment (SM, 6 items), and Overall Competence at school (OCS, 7 items). OCS has been treated separately from SAED in this study (see below). Within the above subscales, items were scored by each student’s Class Mentor teacher.”

This revision is now included in the text. Please note that the references are placed at the end of the paragraph (references 29-31).
8. Line 83 - Please provide a reference for the use of the 13 cut point.

Response: To be clear, the following paragraph (Lines 88-92) are followed by reference 29.

The SAED is a standardized, norm-referenced scale that assists in the identification of children who qualify for the federal special education category of ED. On the SAED subscale, higher scores are considered deviant. Compared with the Taiwanese Non-Emotional Disturbance Norms, a substantially deviant SAED score is indicated by a score that above the 91 percentile (>90th percentile), which corresponds to standardized scores ≥13 [29]. Therefore, a score of 13 was chosen as the cut point. Children with a score ≥13 were considered to have emotional disturbance. Besides, children with a score <6 (fell below the 9th percentile) were considered to have an unfavorable overall school performance.

This information has been inserted in lines 88-92.

Reference 29:


9. Line 123 - Incorrect reference has been added for physical activity recommendations

Response: Thank you. The incorrect reference has been changed as indicated below in line 130.

Reference 35:


10. Lines 124-128 - Sufficient explanation has now been added with regards to BMI classifications, however a reference still needs to be provided.

Response: Thank you. The reference has been added (line 135).

Reference 36:

Results

11. As per previous revision comment - the results section is really long and there is quite a bit of repetition of what is in the tables. Recommend cutting back to key results

Response: The Results have been revisited. It will be recalled that we gave them editorial attention in the last revision, with an emphasis on headed and categorised sections. The data are extensive and require consistent description, section by section. It is not considered helpful to the reader to have this abbreviated further. As far as we understand, the Journal does not prescribe a word limit for Results or any other section of a paper.

Discussion

Discussion has improved, however still needs some revisions.

12. As per previous revision comment - It would be recommended to add an opening paragraph to briefly reiterate the study aims and summarise the main findings in relation to the aims.

Response: We now present the diagrammatic overview of the study and its findings in an opening paragraph to the Discussion (lines 270-276).

13. Line 264 - this first section has too much repetition of the results and there is no discussion of findings compared with other literature. This needs to be addressed

Response: We have made the points we wish to make less data dependent in this part of the Discussion.

14. Line 265 - The sentence - 'For the collective and particular measures of emotional disturbance reflected in SAED, there were consistently negative associations' - this sentence is incomplete, assume consistently negative associations with OCS given the sub-heading this falls under however for clarity I would recommend stating this clearly.

Response: This sentence has been simplified and completed by reference to OCS (line 278).

15. Line 280 - It would add to the discussion to address in this section - How the dietary quality scores of the current study sample compare with other comparable studies using the YHEI-TW?
Response: At the end of the section on ‘Dietary quality and pattern’, we now bring together other studies using YHEI-TW in child development with the present study (lines 314-317).

16. Line 317 - 'who are the students at risk -puberty and gender' There is no discussion or reference to other literature in this section
Response: It is known that school environments, including food systems and recreational settings, are factors in child development at puberty in Taiwan. This has been added to the Discussion (lines 336-338).

17. Line 334 - 'In the present study, for girls, we found BMI to be independently associated with OC, which is likely to have captured physical activity information.' This statement is a bit of an over-reach
Response: We have modified this sentence (lines 352).

18. Line 326 - the favourable/unfavourable in brackets here doesn't work because you have started the sentence with 'one or other of emotional disturbance or school performance' - i.e. there is no clarity as to which of these the information in brackets refers to
Response: We have modified this sentence (lines 345-348).

19. It's not needed to refer to tables and figures within the discussion section - this has already been done in the results.
Response: Apart from the diagrammatic overview, we have deleted references to tables and Figures in the Discussion.

20. As per previous revision comment - It would also be recommended to add a paragraph to the discussion on the implications of the study findings e.g. what does this paper add to the evidence base? What are the implications for health promotion practitioners or others working with adolescents in the school setting?
Response: Population-wide and representative evidence is provided in this study for children of dominantly Chinese ancestry and culture that dietary quality, along with parental input and personal behaviors is associated with emotional status and school performance. Intervention
studies in support of these findings would add confidence to policy and practice which sought to enhance school performance by diet. In the meantime, household, school and community encouragement for healthier dietary patterns should be a low risk-high benefit option.

This has been added to the Discussion (lines 373-380).

Tables and Figures

21. Figure 1 - as per comment above this shouldn't be referred to in the background. If authors decide to keep this figure a footnote needs to be added to clarify these are the results of the current study, except where reference to other studies are provided.

Response: Figure 1 has been removed from background and transferred to the Results and Discussion. The findings represented in this figure are those of the present report except for “obesity→emotional disturbance” which have been reported in “Reference 14” for Taiwanese schoolchildren. The information has been added in the footnote.

22. Tables 1 and 2 - the number of decimal places reported should be consistent throughout.

Response: Done.

Tables 1 and 2

23. As per previous revision comment - If characteristics are presented by overall competence categories, percentages within each overall competence category should add to 100 rather the percentages for each characteristic category adding to 100. i.e. for gender it should be the percentage of the group with z-score ≤ 6 who are male/female adding to 100% and the same for the group with z-score >6.

Still recommend this change.

Response: Done.