Author’s response to reviews

Title: Determinants of eating patterns and nutrient intake among adolescent athletes: a systematic review

Authors:

Matias Noll (matiasnoll@yahoo.com.br)

Carolina Mendonça (carol_mendonca85@hotmail.com)

Lorena Rosa (lorenapsrosa@yahoo.com.br)

Erika Silveira (erikasil@terra.com.br)

Version: 1 Date: 14 Jun 2017

Author’s response to reviews:

14 June 2017

Editorial Board

NUTRITION JOURNAL

Dear Dr. Kentaro Murakami,

I wish to re-submit our manuscript titled ‘Determinants of eating patterns and nutrient intake among adolescent athletes: a systematic review’ for publication in NUTRITION JOURNAL as a systematic review. Your suggestions and remarks have helped improve our manuscript.

We thank the reviewers for their thoughtful and in-depth comments on our manuscript, as this helped us to reflect on and improve the manuscript. We appreciate their commitment and effort.

We carefully considered each comment and have addressed them accordingly in the revised manuscript. All comments were addressed in the revised version of the manuscript, and some are also discussed here. Please find attached our point-by-point responses to the reviewer comments, for which our answers are indicated in red font. Revisions in the text are also shown using red font. We highlight that this version was submitted to a professional English Editing service (Editage).
We appreciate the opportunity to improve several aspects of our systematic review to make it more comprehensive. We hope it is now suitable for publication in your prestigious journal.

Thank you for your consideration. I look forward to hearing from you.

Yours sincerely,
Matias Noll
matiasnoll@yahoo.com.br

____________________________________________________________________

Point-by-point responses to the reviewers’ comments

Submission: Manuscript reference NUTJ-D-17-00116

You will find attached a revised version of our manuscript “Determinants of eating patterns and nutrient intake among adolescent athletes: a systematic review” which we would like to resubmit for publication as a systematic review in NUTRITION JOURNAL.

We thank the reviewers for their thoughtful and in-depth comments on our manuscript. Your suggestions and remarks have helped us to reflect on and improve it. We appreciate your commitment and effort.

We carefully considered every comment and made appropriate changes to the manuscript. All comments are addressed in the revised version of the manuscript, and some are also discussed here. Below please find our point-by-point responses to your remarks. Our answers are indicated in red font. Revisions in the text are also shown using red font. We highlight that this version was submitted to a professional English Editing service (Editage).

Yours sincerely,
Matias Noll
Reviewer #1: Re: Determinants of eating patterns and nutrient intake among adolescent athletes: a systematic review

Dear authors,

The topic of the article is interesting, since participation in sports activities may influence food choice of athletes.

The point, that food patterns are also determined by other factors including age, sex, socioeconomic or cultural background is well taken.

Methods namely the search strategy, the review process and data extraction are adequate.

Line 164 ff

The authors reported that the most common instruments to assess nutrient intake in the selected studies were food records, followed by a self-reported questionnaire and food weight methods. This issue is of major interest!

Food records and food weight protocols including less than 2 or 3 days are not at all representative to calculate the average nutrition intake. As to the self-reported questionnaires: Were these instruments validated? Please clarify this point by adding further information at the beginning of the section outcomes and determinants.

Authors: Thank you for raising this important point; we agree that it is essential to more clearly state clear these aspects of the manuscript. We improved our first “Outcomes and Determinants” paragraph as suggested, including more specific information regarding validation of the instruments used, as follows:

Lines 147-152 “From these records, 15 studies evaluated three or more days, one study [44] evaluated two days, and another study [51] evaluated just one day food records. Second, a food weight method with one day [46] and five days or more [39,42,52] was used. Third, four studies used a validated food frequency questionnaire [42,43,51] and one [41] used a questionnaire specifically validated for that study. Fourth, one study used a food diary in association with food records [54].”
Moreover, given the importance of the reviewer's comment, we have also opted to include a short sentence showing food records and food weight protocols from 3 days or less are not representative and thus are not valid for determining nutrient intake, as follows:

Lines 267-268 “…food records and food weight protocols including less than 3 days are not representative to calculate nutrient intake”

Please be aware, that using non-representative instruments to estimate food intake may have contributed to conflicting results with regard to energy or nutrient intake, e.g. Coutinho et al (54) line 201

Authors: This observation is very important. To address this, we included a sentence at the end of the paragraph, as follows:

Lines 189-191 “These conflicting results could be due to the different methods used; for example, Coutinho et al. [51] evaluated just one-day food records.”

Line 220ff

Ziegler et al.... please add a short information how meal patterns and menu settings were associated with nutrient intake. In addition, all data is based on observational studies.

Therefore, the term „influences” (line 222) should be avoided

Authors: We have replaced “influences” by “associated”.

Moreover, we have included a short information about each article cited, as follows:

Lines 209-213 “Ziegler et al. [48] examined the contribution of meal patterns (breakfast, lunch, dinner, and snack) on micro- and macronutrient and found no differences between meals for boys or between the predominant sources of fat, cholesterol, and dietary fiber intake at lunch and dinner for girls. Garrido et al. [52] evaluated menu settings and found that fixed ‘menu-style’ menus have more total energy and macro- and micronutrient intakes than do flexible ‘buffet-style’ menus.”

Line 273ff
Several limitations of the included studies are well described by the authors! However, the limited evidence should also be considered in the conclusion (Line 313) e.g. future research should ...

Authors: We are very grateful for your suggestion. We have added a sentence to clarify these aspects and improve our conclusion, as follows:

Lines 305-307 “Furthermore, future research should be developed to improve the quality of evidence regarding determinants of eating patterns and nutrient intake.”

Reviewer #2: Page 1: Abstract - Background - The paragraph authors should be shortened to one sentence

The present review aims to update the influences of sport modalities and performance, as well as nonexercise-related determinants, on eating pattern and nutrient intake outcomes among adolescent competitive athletes

Page 3: Abstract - Background - The paragraph authors should be shortened to one sentence as mentioned above.

Authors: We are very grateful for your suggestion and have rewritten the Background section as you suggested, as follows:

Lines 27-29 “This review aims to update the influences of sport modalities, sport performance, and non-exercise-related determinant, on eating patterns and nutrient intake outcomes among adolescent competitive athletes.”

Page 3 - Keywords The authors should use Youths instead of young

Authors: As suggested, we have replaced “young” with “youth”.

Page 4 - Line 51 The benefits of sports for adolescents, as well as some negative aspects.

Should be changes to The benefits and drawbacks of sports for adolescents have been demonstrated.

Authors: Thank you very much. As suggested, we have rewritten this sentence, as follows:
Line 50 “The benefits and drawbacks of sports for adolescents have been demonstrated”

Page 4 - Line 54 alcohol consumption .. should be deleted from this position. The authors should write instead that practicing of some sports is associated with iron deficient anemia ( ), liberation of free radicals ( ) or sudden death ( ). Furthermore, considerable numbers of athletes consume high dietary supplements (10-12)

Authors: We have improved this sentence in accordance with your comment, as follows:

Lines 52-53 “Participation in some sports is associated with iron-deficient anemia [8], high dietary supplement intake [9–11], and sudden death among athletes [12,13].”

Page 4 Lines 55, 56 Shorten the two sentences in just one sentence - Few studies have investigated eating patterns and nutrient intake [18,19] in adolescent athletes [17,20,21].

Authors: We have written just one sentence as you suggested, as follows:

Lines 55-56 “However, few studies have investigated eating patterns and nutrient intake [19,20] in adolescent athletes [18,21,22].”

Page 4 - Lines 59 - 64 delete !!! (Therefore, a review could be useful to systematize and improve knowledge about sports modality and performance influences, as well as nonexercise-related influences, on eating pattern and nutrient intake outcomes. Reviews that focus on youth and adults have been published [22,24–27]; however, the present review is the first to target adolescent athletes. Here, we aimed to systematically review the determinants of eating patterns and nutrient intake among adolescent competitive athletes.)

Authors: As suggested, we have deleted this sentence.

Page 5: Line 63 - 65 Delete the first sentence ! (Reviews that focus on youth and adults have been published [22,24–27]; however.). The present review is the first to target adolescent athletes. Here, we aimed to systematically review the determinants of eating patterns and nutrient intake among adolescent competitive athletes.

Authors: As suggested, we have deleted this sentence.
In August 2016, two independent researchers searched the PubMed and Scopus databases, with no language restriction, for articles published between January 1996 and August 2016) duplicate to what is written on page 6 - Lines 109 - 111 (Two reviewers (MN and CRM) then independently screened the titles and abstracts of all articles that were identified in the literature search for inclusion in the systematic review.

Authors: Thank you for your careful review. However, as there are two separate ideas presented here, we believe that both sentences are essential as we first “searched the PubMed and Scopus databases” and then “screened the titles and abstracts of all articles”.

The three paragraphs (Lines 79-137) should be shortened to three sentences and the reader is not interested in such details.

Authors: Thank you for raising this important point. We removed the search strategy from the manuscript and have included it as an Additional file. We believe the remaining sentences are essential for the reader to clearly understand how we obtained our results and if they need or want to reproduce our study. Moreover, as per the Nutrition Journal guidelines, it is recommend that authors follow the PRISMA checklist and guidelines: “…is intended as an aid to authors to clearly, completely, and transparently let readers know what authors did and found”1. However, we have rewritten these sentences to more clearly and concisely state these points.

1. https://nutritionj.biomedcentral.com/submission-guidelines/preparing-your-manuscript/review

Pages 7; Lines 139-149 Duplicate to what is written in the abstract Lines 34-38. Such details should be deleted from the abstract !!!

Authors: Regarding your suggestion, we improved our abstract and have removed some sentences.

293 Overall, based on the gap in knowledge on eating patterns, the limited

Authors: Thank you. We have rewritten this sentence as per your suggestion.
Line 280 “The World Health Organization addressed this issue in 2015 [76].”

Table 1 : Line 575  The data listed are not understandable. What is the differences between columns (2) and (4) N %

Authors: In the submitted version, we have presented the same information, but in two columns. However, based on your comment, we have edited this table to just one column so that columns 2 and 4 are combined. Please see our revised Table 1.

Table 1- Line 29 . The authors should specify the European country

Authors: Thank you for your careful review. As suggested, we replaced “Europe” with “European countries” as appropriate.

Table 2 . This table is not acceptable in its present form, and reediting is required

The title of the table should be changed into:

Table: The design of human trials for estimating the food patterns and nutrient intakes among adolescent athletes distributed according to sports and country

Authors: As per your recommendation, we have changed the title of the table to “The design of human trials for estimating food patterns and nutrient intakes among adolescent athletes distributed by sport and country”.

Columns 1 and 2 should be deleted and the authors write instead just the reference number after the country's name.

Authors: Thank you for your suggestion; we have fully incorporated this into the table.

The columns should be reorganized and listing should be either alphabetically according to the sport followed by countries

Authors: We have fully incorporated your suggestion into the table.
The columns designated instrument or dietary assess, the abbreviation of food record = FR should be written in the table and at the bottom of the table the description of FR.

Authors: Thank you for the suggestion. This has been added to the table.

What is meant by self report?? Does it differ from food record.

Authors: Thank you for your careful review. We checked the methods from all articles included in the review and have corrected some terms. We revised this to “FFQ”, referring to a food frequency questionnaire; the term “self report” was deleted.

The column designated outcome should be deleted all studies were based on assessing nutrient intakes, except the German study which was based on the food intake among athletes performing several sports. A label with an asterisk (**) after Germany and at the bottom of the table add only food pattern was recorded.

Authors: As some studies evaluated both nutrient intake and food intake, with only one study solely evaluating food intake, we consider this column important for the reader to fully comprehend the findings. However, based on your suggestion, we grouped the “outcome” column with the “dietary assessment” column.

NSD in the last column?? Does it mean no significant differences??

Authors: NSD means “no significant differences” and is presented at the end of the table.

The last column needs reediting. With regard to nutrient intakes, the reader is interested in numeric data, as % of recommended dietary allowances or FAO/WHO requirements. The authors should explore the possibility of dividing the table into two tables, The first tables compares the finding of the 7 different studies regarding the same sport such as soccer and the mean daily nutrient intakes and as % of RDA or FAO/WHO requirements. The second table will be dedicated to point out differences between males and females playing the same sport?? in relation to performance and % adequacy of intake.

Authors: We would like to thank the reviewer for the in-depth review and their thoughtful suggestions. Although we believe that these ideas are important, our study aimed to review the determinants of eating patterns and nutrient intake, thus this suggestion is beyond the scope of the current manuscript. Furthermore, the last column presents the most essential results because
it lists the associations found in our review and helps to answer both research questions this review sought to address: a) whether sport characteristics (i.e. sport modality and training aspects) are associated with eating patterns and nutrient intake and b) whether demographic, socioeconomic, environmental, psychosocial, and cultural factors are determinants of eating patterns and nutrient intake. Moreover, based on these findings, we identified gaps in the literature in this field and priority areas for future research. We appreciate the suggestion and will consider these ideas for future studies to more objectively analyze nutrient intake and the relationship with FAO/WHO requirements.

It is highly recommended to delete from the original manuscript both tables (1) and (3)

Authors: Thank you for raising this important point to improve our manuscript text. As suggested, we have removed both tables and have included them as Additional files.