Author's response to reviews

Title: Daily calcium intake in male children and adolescents obtained from the rapid assessment method and the 24-hour recall method

Authors:

   Michael Moore (mm01cf@brocku.ca)
   Sarah Braid (sarahbraid@hotmail.com)
   Bareket Falk (bareket.falk@brocku.ca)
   Panagiota Klentrou (nota.klentrou@brocku.ca)

Version: 2 Date: 20 June 2007

Author's response to reviews: see over
Dear Editor,

Please find attached the revised typescript of our article “Daily calcium intake in male children and adolescents obtained from the rapid assessment method and the 24-hour recall method”.

Please note that we have responded to all points raised by the experts and the appropriate changes/modifications have been underlined in the revised text (attached herein). Specific details on how each of the reviewers’ comments has been handled can be found in the following page.

We do hope that the enclosed manuscript now meets the Nutrition Journal standards for publication.

On behalf of the authors,

Panagiota Klentrou
Department of Physical Education & Kinesiology
Reviewer 1:

Major Compulsory Revisions

1. The aim was clearly stated in the paper but, the introduction should be more specific and directional based on what is known about RAM for adult

Amendment has been made in the second paragraph (see underlined sections) to detail RAM methods in adults more appropriately.

2. The precise number of child and adolescent need to be indicate in the methods section

Amendment has been made to ensure all subjects groups are clearly described in the methods section.

3. In the discussion it is need to speculate on the inopportunity to use RAM methods because of not only the Daily calcium intake for both age groups obtained from RAM is overestimated in comparison with 24-hr recall but in particular because of the amount of Daily calcium intake for both age groups obtained from RAM is “unrealistic” compared with the daily calcium intake obtain by others authors with more precise methods

Calcium overestimation via the RAM as compared to other methods has been addressed in the discussion. References were made to Ortega et al, 1998 and Fields et al, 1994 to support this statement.
**Reviewer 2**

**Major Compulsory Revisions**

1. Page 3, line 11-you state that the 24-hr recall has often been used in children. This is not enough of a reason to use this "flawed" method. Please provide more information on why you feel the 24 hr recall is an appropriate measure to compare to and include this as a limitation in your discussion.

   **This point has been addressed as suggested by adding more information in the introduction and discussion.**

2. Page 4, line 5-why do you not include 13 years olds?

   **This study was part of a larger study that was examining the effects of physical activity in pre- and late-pubertal boys which excluded pubertal stage 3 (as determined by secondary sexual characteristics) and 13 year-old boys (to exclude the approximate age of pubertal growth spurt in boys). This rationale is included and indicated on page 4 of the paper.**

3. Page 4, line 12-include a statement about their level of adiposity. What percentage of the subjects was overweight? Were they equal in both groups? Overweight children have been shown to underestimate intake which could alter the results. See Firorito LM et al. Girl's dairy intake, energy intake and weight status J Am Diet Assoc 106:1851-5, 2006.

   **As clarified in the Methods section, both groups had a small percentage of boys that were overweight (23 and 13% for ES and HS, respectively) with no significant differences in relative body fat between groups (19.3% and 16.4% body fat for ES and HS, respectively).**

4. Page 4, last line-was the researcher a registered dietitian? You stated in your introduction that the 24-hour recall involves expertise. Thus if you did not use a registered dietitian, this should be stated as a limitation in your discussion.

   **The researcher was highly experienced and well trained in nutritional intake analysis. This is now stated in the text.**

5. Page 5, line 15-why did you need to add information about fast food chains? You stated in line 9, that eating out was not included in the analysis.

   **Information on fast food chains were only required if fast food eating was considered a typical or habitual eating regiment for the subject.**

6. Page 6, line 10-you stated that "as expected calcium intake was significantly higher in HS" Could you please provide a reference for this. Consumption of dairy products has
been shown to be lower in adolescence. For example: See Perez A et al. Differences in food consumption and meal patterns in Texas school children by grade. Prev Chronic Dis 4:A23, 2007.

We thank the reviewer for this comment. Our statement has been modified accordingly.

7. Page 7, line 10-did Magkos use the same questionnaire as the current authors? This should be stated. They may have had a difference in their results because Magkos did multi-pass 24 hour recall? Please comment.

Magkos used a 30 item FFQ which is not the same as the RAM used in this study. This is now clarified in the text.

8. Page 7, line 16-perhaps the reason for the differing calcium values was because a parent was not involved in the analysis. Children may not have reached a developmental stage necessary to understand the concept of averaging intake. See Field et al. Reproducibility and validity of a food frequency questionnaire among fourth to seventh grade inter-city school children: implications of age and day-to-day variation in dietary intake. Public Health Nurs 2:293-300, 1999. Perhaps you need to add this as a limitation to your study. Refer to Eck et al. Recall of a child's intake from one meal: are parents accurate? J Am Diet Assoc 89:784-9, 1989.

Further comments have been added to the methodology to support our rationale for the use of subjects’ responses, rather than parental responses to the 24 h recall method.

Minor Essential Revisions

1. Page 8, line 2-include the reference in your reference list for the Institute of Medicine

This reference has been included as suggested.

2. Page 8, line 11-change wording to "assessing calcium intake in male and female children and adolescents?"

Amendment has been made as suggested.