Author's response to reviews

Title: Resting heart rate as predictor of metabolic dysfunctions in obese children and adolescents

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Version: 3 Date: 10 January 2012

Author's response to reviews: see over
Editorial comments:
- We will need you to seek further assistance with the language of your manuscript. We would prefer that you sought professional help from a native English speaking scientific copy-editor. For authors who wish to have the language in their manuscript edited by a native-English speaker with scientific expertise, BioMed Central recommends Edanz (www.edanzediting.com/bmc1). BioMed Central has negotiated a 10% discount to the fee charged to BioMed Central authors by Edanz. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication. For more information, see our FAQ on language editing services at http://www.biomedcentral.com/info/authors/authorfaqs#12.

- We strongly encourage you to include an Acknowledgements section between the Authors? contributions section and Reference list. Please acknowledge anyone who contributed towards the study by making substantial contributions to conception, design, acquisition of data, or analysis and interpretation of data, or who was involved in drafting the manuscript or revising it critically for important intellectual content, but who does not meet the criteria for authorship. Please also include their source(s) of funding. Please also acknowledge anyone who contributed materials essential for the study. Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements.

Please list the source(s) of funding for the study, for each author, and for the manuscript preparation in the acknowledgements section. Authors must describe the role of the funding body, if any, in study design; in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication.

As solicited by the Editor, a native speaker reviewed the manuscript. Moreover, there is not necessity of an acknowledgement section in our manuscript, as well as, the study had not funding.
Reviewer's report

Title: Resting heart rate as predictor of metabolic dysfunctions in obese children and adolescents

Version: 2 Date: 12 November 2011
Reviewer: reizo baba

Reviewer's report:
The authors have revised the manuscript in accordance with the reviewers' comments.
I believe that it has become worthy of publication as it as.

There are no more comments of this Reviewer.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Reviewer’s report
Title: Resting heart rate as predictor of metabolic dysfunctions in obese children and adolescents
Version: 2 Date: 18 November 2011
Reviewer: Sharon E Fleming

Dear Reviewer - 2, we thank the contributions regarding our manuscript. We know that the policy of the BMC Pediatrics allows a maximum of two revisions on manuscript. Thus, we made every effort to fully address the comments during this last revision.

Best regards,
The Authors

Reviewer's report:
Most of the comments made by reviewers have been addressed. Several outstanding comments follow:
1. English usage is still cumbersome and, in some places, not adequate. As solicited by the Reviewer, a native speaker reviewed the manuscript.

2. Pubertal staging – although more information is now provided, it must be stated whether then 2 measures for each child were averaged to give a single pubertal stage value for each child (eg. If a child indicated breast stage = 3 and pubic hair stage = 5; is that child’s pubertal stage = (3+5)/2 = 4?). Also, Marshall and Tanner did not use age of menstruation in arriving at a pubertal stage value. Why was this information gathered and how was it used? If it was not used, delete from manuscript.

Dear Reviewer-2, if a composite assessment of maturity status is used, Malina, Bouchard and Bar-Or (now reference 35 in the manuscript) indicate that intermediate stages can be created (e.g. Stage 3.5 derived from Pubic Hair Stage 3 and Breast Stage 4). Thus, in cases that there was divergence between genitalia/breast development and pubic hair stage [6% of the cases; n= 11], the stage of the genitalia/breast development was adopted. This information was inserted in the Methods. Moreover, in these 11 cases, none of them the divergence was higher than 1 stage. Age of menstruation was collected but not used in this study. Thus, as solicited, this information was excluded.

3. Results – too many data are repeated in both text and tables. This reviewer suggests deleting parenthetical information from the text. As solicited by the Reviewer, repeated data in both tables and text was excluded from parenthetical information.

4. Avoid referring to “lipoproteins” when reporting data. Instead, specifically state which lipoproteins are being referred to (eg. LDL-C and HDL-C). As solicited by the Reviewer, the type of lipoproteins was specified in the text.
5. P.10, last paragraph. Since insulin was not measured and insulin resistance not calculated (or determined specifically), this reviewer suggests rephrasing to avoid the implication that fasting glucose can be used as a measure of insulin resistance. 

**As solicited by the Reviewer, the paragraph was rephrased and this relationship between fasting glucose and insulin resistance was excluded.**

**Level of interest:** An article of importance in its field  
**Quality of written English:** Needs some language corrections before being published  
**Statistical review:** Yes, and I have assessed the statistics in my report.  
**Declaration of competing interests:**  
I declare that I have no competing interests
Reviewer's report
Title: Resting heart rate as predictor of metabolic dysfunctions in obese children and adolescents
Version: 2 Date: 18 November 2011
Reviewer: D A Caranti

Dear Reviewer - 3, we thank the contributions regarding our manuscript. We know that the policy of the BMC Pediatrics allows a maximum of two revisions on manuscript. Thus, we made every effort to fully address the comments during this last revision.

Best regards,
The Authors

Reviewer's report:
1. I suggest include a figure to explain the results of ROC curve.

Dear Reviewer-3, unfortunately, it was not possible to use the classical plots of the ROC curve with sensitivity and specificity, because a large number of figures would be necessary and these data are presented also in Figure 1 (repeated data). Moreover, the more relevant data provided by ROC curve is presented in Figure 1 (AUC, which denotes a construct of sensitivity and specificity).

Also, I suggest add an appropriated reference in the method section. A receiver operating characteristic curves (ROC curve) was used to determine a cut-off that suggested the best accuracy of the study variable given as area under the curve (AUC) and 95% confidence interval (CI). An AUC of 1.0 is characteristic of perfect discrimination, whereas an AUC of 0.5 indicates chance discrimination according Esteghamati et al, 2010. I recommend to include the confidence interval.

As solicited by the Reviewer, the paper of Alireza Esteghamati et al. was inserted in the Method Section, as well as, the 95% confidence intervals of the AUC values were inserted in Figure 1.

2. To complet the contribution is necessary include the pubertal stage with a real stages not only the assessments. On the other hand, the pubertal stage with the results and physiological aspects were not mentioned in the discussion. In this way, Tanner stage should be define in the results session with major details.

As solicited by the Reviewer, the percentage of youth in each stage of maturation was inserted in Table 1 and presented in the results. Moreover, some information about this issue was inserted in the Discussion. Unfortunately, due the limitation of space, it was not possible to present a profound discussion about the issue.

3. I recommend to insert a minor describe with the Metabolic Syndrome prevalence in Brazilian adolescents according Caranti et al, 2007 and 2010 to know about this condition.
As solicited by the Reviewer, Brazilian data about metabolic syndrome in obese youth were inserted. Particularly, the findings of Caranti et al. (2008) were presented.

Finally, all together I agree with your important comments.
I accept this manuscript.
Best regards,
Danielle