Reviewer’s report

Title: Oscillometric Blood Pressure By Age And Height For Non Overweight Children And Adolescents In Lubumbashi, Democratic Republic of Congo

Version: 3 Date: 29 Mar 2017

Reviewer: Jun Ma

Reviewer's report:

The authors provided the age-height-specific BP thresholds for children and adolescents in Lubumbashi. Oscillometric device was used for BP measurement, and 8371 participants aged 3-17 years were involved in this study. Their results may improve the assessment of paediatric hypertension in Lubumbashi. However, I have several issues to address.

Abstract:

1. Sample size was not mentioned.

2. Criteria for identifying overweight and obesity were not provided.

Introduction

3. Though authors mentioned the relationship between obesity and BP, why the participants with overweight / obesity were not involved in the analysis was not addressed.

4. "Simonettiet al[13] reported a strong linear correlation between BP and BMI". SimonettI's paper is not for this purpose, please change the article.

Methods

5. Sample size was not described in the methods section.

6. Authors are suggested to clarify the criteria for inclusion and exclusion. Additionally, the reason of deleting the participant, and the number of deleted participants for each reason, should be provided.
Discussion

7. Why did the authors use P90 and P95 as the cut-off values for prehypertension and hypertension, respectively? Some countries, such as UK, use P98 as the cut-off values for hypertension. Authors are advised to address the reason.

8. It is still controversial whether oscillometric devices could use as an alternative to auscultation for BP measurement. In addition, oscillometric devices developed by different companies are likely to be incomparable. That means that the cut-off values developed by Authors' study (DatascopeAccutorr Plus) may not suitable for the BP measured by other company's oscillometric device.

Authors are advised to address how could other researchers use this study in discussion section.

9. As mentioned by authors, "BP references are based on ... study populations as ethnicity or nationality". Different population have their BP characteristics, and the BP references based on one population may not suitable for other populations.

Why did the authors compare their results with others, such as KIGGS, OLAF and CHNS. These references not only use different BP measurements, but also based on different populations. Authors cannot identify the difference between their reference and others are the result of different devices, ethnicities, or other reasons.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:
Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal