

# Letter to the editor: Age-, sex-, and height-based blood pressure reference charts, Yazd children 6–18 years, Iran

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We read with great interest the article titled “Age-, sex-, and height-based blood pressure reference charts, Yazd children 6–18 years, Iran” by Ahmadi et al.<sup>1)</sup> in the August 2020 issue in *Clinical and Experimental Pediatrics*. The article is highly informative and describes the age and height specific 50th, 90th, 95th, and 99th percentiles of systolic and diastolic blood pressures (BPs) in Yazd boys and girls using 10-cm height intervals. However, there are several points we would like to highlight to bring more clarity to this issue.

- In the result section, the author stated the definition and classification of hypertension in childhood 6–15 years old based on 4th report on diagnosis, evaluation and treatment of NHBEP (National High Blood Pressure Program working group in children and adolescences) whereas for boys and girls aged 16 years or older, the absolute cutoff BP used for adults which are based on 4th report of NHBEP<sup>2)</sup> Actually, the mentioned BP standard is old and dated back to 2004, and its implication in the current clinical practice and researches is no more valid. After a break of 13 years, the American Academy of Paediatrics recently updated the clinical practice guidelines for Screening and Management of High BP in Children and Adolescents.<sup>3)</sup> Major change has been alteration of previous blood pressure classification. The prehypertension has been relabeled as elevated blood pressure and stage 1 and 2 hypertension has been redefined. For adolescents >13 years, instead of percentile-based definitions, hypertension is now defined as per adult thresholds.<sup>3)</sup>

- The pivotal aspects of planning clinical research are the calculation of the sample size, which has not highlighted in the study.

- It has not understood, why the blood sampling had been done in between BP measurement.

- Is there any statistical significant difference in mean systolic and diastolic BP according to gender? If yes, then any particular reason like genetic, nutritional, ethnic, or socioeconomic standards, which leads the difference according to gender.

- The grading of the hypertension is important in the pediatric population for the management purpose.<sup>4,5)</sup> Author has not reported the number of elevated blood pressure/prehypertension cases in the study population.

To my knowledge, this is the best study of age, sex, and height-based blood pressure reference carried out in Iran by the author.

## Footnotes

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See the article “Age-, sex-, and height-based blood pressure reference charts, Yazd children 6–18 years, Iran” via <https://doi.org/10.3345/cep.2019.00094>

See the authors reply: “Age-, sex-, and height-based blood pressure reference charts, Yazd children 6–18 years, Iran” via <https://doi.org/10.3345/cep.2021.01312>.

## References

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