Comment on: "Metabolic syndrome in adolescents and antioxidant nutrient intake: a cross-sectional study"

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Dear Editor.

We are very lucky enough to read the article entitled "Metabolic syndrome in adolescents and antioxidant nutrient intake: a cross-sectional study," written by Batista et al.¹. This valuable study found no association between metabolic syndrome (MS) and the tertiles of the intake of antioxidant nutrients, while lower intakes of vitamins A and E are associated with risks of MS-related substrates, such as triglycerides and glucose. Although the findings of the study have explained part of the problem, we believe, from our point of view, that this article still deserves further discussion.

We suggested the authors to provide the family diet spectrum of the sample because the family dietary habit and levels for intake of vitamins from food were discrepant. In controlling for confounding factors, the authors controlled only for education of the mother. However, education for the father and other family members should also be described in detail. Furthermore, detailed procedures of height, weight, and waist circumference measurement should be described in the "Methods" section. It is also suggested to specify the time of blood pressure measurement, as blood pressure varies with time.

Another concern of this study was that the diagnostic criteria w ere unclear; generally, diastolic blood pressure 90 mmHg or higher and/or systolic blood pressure 130 mmHg or higher are considered hypertension. We also suggest the authors to

describe the diagnostic criteria for MS. The authors investigated the association between MS and antioxidant intake in adolescents; however, the definition of adolescents in this article was not accurate enough, because the World Health Organization defines adolescents as those aging between 10 and 19 years.

DATA AVAILABILITY

The data sets generated and analyzed during this study are available from the corresponding author on reasonable request.

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AUTHORS' CONTRIBUTIONS

BZ: Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft. **LH:** Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – review & editing.

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