Letter to the Editor

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Internal Inconsistency Between the Reported 50th Percentile Value and the LMS Median Parameter

Abdullah Teksan. LMS Parameter Inconsistency

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To the Editor,

We read with interest the article by Neyzi et al. entitled “Reference Values for Weight, Height, Head Circumference, and Body Mass Index in Turkish Children,” published in *J Clin Res Pediatr Endocrinol*, which presents percentile values together with corresponding LMS parameters for weight in Turkish children (1).

Upon independent recalculation, we identified an internal inconsistency between the 50th percentile (P50) value for weight reported in Table 1 and the median (M) parameter for weight presented in Table 5 for 8-year-old boys.

By definition, the M parameter represents the median of the distribution and should therefore correspond to the 50th percentile. However, the M value (23.9) reported in Table 5 does not match the 50th percentile value (25.9) provided in Table 1. Recalculation using the published LMS parameters resulted in an approximate deviation of 0.5 standard deviation score (SDS).

When the 50th percentile value reported in Table 1 was used as the M parameter, internal mathematical consistency was restored and recalculated Z-score values corresponded to the published percentile data. This finding was reproducible upon repeated recalculation. Given the widespread implementation of LMS parameters in digital growth assessment tools, even a localized discrepancy between the reported median and percentile values may have implications for automated percentile and Z-score calculations.

We respectfully request clarification regarding the reported LMS median parameter to ensure consistency between the published percentile and LMS data.

References

1. Neyzi O, Bundak R, Gökçay G, Günöz H, Furman A, Darendeliler F, Baş F. Reference values for weight, height, head circumference, and body mass index in Turkish children. *J Clin Res Pediatr Endocrinol*. 2015;7(4):280-293. doi:10.4274/jcrpe.2183

Declaration Regarding the Use of AI and AI-Assisted Technologies

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