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Letter to the Editor

Comments on: Multifocal contact lenses and defocus incorporated multiple segments lenses slow myopic progression in Chinese children with high myopia



Keywords:

High myopia

Children

Defocus incorporated multiple segments lenses (DIMS)

To the Editor,

We were delighted to read the recently published article by Li et al., entitled ‘Multifocal contact lenses and defocus incorporated multiple segments lenses slow myopic progression in Chinese children with high myopia’¹ which addresses an important area in myopia control. The study provides valuable insights into the comparative effectiveness of multifocal contact lenses and DIMS spectacle lenses for slowing myopia progression in children. However, upon careful review of the manuscript, we identified some reporting and methodological discrepancies that warrant clarification, as they may affect the interpretation and reproducibility of the study’s findings.

First, an inconsistency appears in the reported sample sizes across different sections of the article. In the abstract, the authors report that the study included 81 children in the DIMS group, 60 in the multifocal contact lens group, and 108 in the single-vision spectacle lens (SVLs) control group. However, in the methods section and the baseline characteristics table, the numbers appear reversed, indicating 108 participants in the DIMS group and 81 in the SVLs control group, while the multifocal contact lens group remains 60 participants. Accurate reporting of group sizes is fundamental in clinical research because sample size directly affects statistical power, the precision of effect estimates, and the interpretation of between-group comparisons. Discrepancies in participant allocation may therefore create confusion regarding baseline comparability and could potentially influence readers’ interpretation of treatment efficacy.

Second, the definitions used to categorize the rate of myopia progression appear inconsistent between the abstract and the main text. In the abstract, progression categories are described as slow progression (< -0.25 D), moderate progression (-0.25 to -0.75 D), and rapid progression (> -0.75 D). In contrast, the methods section defines the categories as slow progression ($\Delta SE \geq -0.25$ D), moderate progression (-0.25 to -0.75 D), and fast progression ($\Delta SE \leq -0.75$ D). These definitions are not equivalent and may introduce ambiguity in the categorization of refractive changes. Because the study’s conclusions partly rely on the distribution of slow, moderate, and fast progressors across treatment groups, inconsistent classification thresholds may influence the interpretation of the reported outcomes.

Third, the statistical methods described in the manuscript appear inconsistent with the statistics presented in the results tables. The methods section indicates that differences between treatment groups were assessed by using one-way ANOVA with Bonferroni-adjusted post-hoc

comparisons. However, the results tables report Z-statistics derived from Dunn’s post-hoc test following a Kruskal–Wallis analysis. These approaches belong to different statistical frameworks. One-way ANOVA is a parametric method based on mean comparisons and assumptions of normality and homogeneity of variance, whereas Kruskal–Wallis with Dunn’s test is a non-parametric rank-based procedure typically used when these assumptions are not satisfied. Because the choice of statistical method can influence p-values and the interpretation of group differences, clarification regarding which analytical framework was ultimately applied and the rationale for its selection would improve the transparency and reproducibility of the analysis.

Finally, clarification may also be needed regarding the definition of high myopia progression used in the sample size calculation. The methods section states that high myopia progression was defined as >0.25 D/year. However, because myopic progression typically results in negative changes in spherical equivalent and progression would generally produce negative diopter values. Interpreting progression as $> +0.25$ D/year would therefore correspond to a hyperopic shift rather than worsening myopia. It would be helpful if the authors clarified whether progression was defined as $\Delta SE < -0.25$ D/year or based on the absolute magnitude of refractive change.

Addressing these issues would help to improve the methodological transparency of the study and support interpretation of the findings while strengthening its contribution to the literature on myopia control. In addition, resolving these discrepancies would facilitate evidence synthesis and enhance the reliability of future systematic reviews and meta-analyses.

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Conflict of interest

The authors(s) declare no conflict of interest.

Reference

- Li M, Zhang K, Hua B, Willeford KT, Chen X, Zhang B, et al. Multifocal contact lenses and defocus incorporated multiple segments lenses slow myopic progression in Chinese children with high myopia. *J Optom.* 2026;19(1):100588. <https://doi.org/10.1016/j.optom.2025.100588>.

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