

# Comment on Effects of Insufficient Sleep on Myopia in Children: A Systematic Review and Meta-Analysis [Letter]

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## Dear editor

We are writing to express our thoughts on the research titled “Effects of Insufficient Sleep on Myopia in Children: A Systematic Review and Meta-Analysis”.<sup>1</sup> This study is of great significance in exploring the relationship between insufficient sleep and myopia in children and has provided a certain reference basis for subsequent related research and practice. However, to further improve the research, we would like to propose the following suggestions.

First, in terms of sample selection, it is recommended to further expand the sample sources to cover children from different regions, different socioeconomic backgrounds, and different lifestyles. The current sample of the study may have certain limitations, only including children from some regions or specific environments, which is difficult to represent the overall situation of children worldwide. For example, increasing the samples of children from rural areas and different climate zones can make the research results more universal and avoid conclusion bias caused by sample limitations.<sup>2,3</sup>

Second, the rate of development of the human eye from age 0–18 is not uniform and linear. Recent studies have shown faster myopia growth at younger, more rapidly developing ages.<sup>4,5</sup> Given the significant differences in the age groups included in the literature by the authors, it is suggested that multiple age groups could be analyzed in subgroups, which would yield more accurate and practical results.

Finally, the Downs & Black checklist used by the authors, while assessing some aspects of the studies, may not have adequately accounted for some emerging or study-specific quality issues. For example, the potential interactive effects of duration and type of electronic device use on sleep and myopia in children in the current digital environment were not captured in the quality assessment.<sup>6</sup> In addition, the tool's scoring methodology relies on subjective judgement, which can lead to variability in assessments between authors. In response to these limitations, the use of the Cochrane Risk of Bias tool 2 (RoB2) can help authors to more carefully assess the risk of bias in the design, conduct and analysis of included studies.<sup>7</sup>

We once again affirm the value of the original research and hope that the original authors can consider the above suggestions to further improve the research content and provide a more solid scientific basis for the prevention and intervention of myopia in children. At the same time, we would like to thank the editor for providing such an opportunity for communication and discussion.

## Author Contributions

HS and ZZ: Concept and design, Formal analysis, Writing – original draft.

XS: Supervision, Writing – review & editing.

All authors have agreed on the journal to which the article will be submitted. All authors reviewed and agreed on all versions of the article before submission, during revision, the final version accepted for publication, and any significant changes introduced at the proofing stage. All authors agree to take responsibility and be accountable for the contents of the article.

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The authors declare that they have no conflicts of interest.

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