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Comment on "Empirical comparisons of heterogeneity magnitudes of the risk difference, relative risk, and odds ratio"

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I am writing regarding the article "Empirical comparisons of heterogeneity magnitudes of the risk difference, relative risk, and odds ratio" by Zhao et al. (Systematic Reviews, 2022;11:26). This study makes a valuable contribution to the field of meta-analysis by providing empirical evidence about the comparative behavior of different effect measures. The finding that approximately half of the analyzed meta-analyses show low heterogeneity is particularly important for researchers conducting meta-analyses, as it helps inform methodological choices and interpretation of results.

However, I identified some numerical inconsistencies that I believe warrant clarification to ensure the accurate interpretation of these important results.

First, regarding Table S2 in the Supplemental File, I noticed that the sum of meta-analyses across the three categories ($I^2 = 0\%$, $0\% < I^2 \leq 1\%$, and $I^2 > 1\%$) does not equal the total number of analyzed meta-analyses (64,929) for any of the models or effect measures. This discrepancy may affect the interpretation of the proportion of low-heterogeneity meta-analyses in practice.

Second, I carefully reconstructed the histogram data for meta-analyses with $I^2 > 1\%$ shown in Fig. 2A using the Degitizit software. For the relative risk measure, I found that the number of meta-analyses was 21,776 under the REML method and 21,875 under the DL method. However, Table S2 in the Supplemental File reports different numbers: 37,607 for REML and 37,020 for DL. Understanding the source of this difference would be valuable for researchers who wish to build upon these findings.

I would appreciate if the authors could help clarify these numerical discrepancies. Their clarification would strengthen the utility of these important findings for future research and meta-analytic practice. The resolution of these questions would be particularly valuable for those who are conducting research on heterogeneity patterns in meta-analyses.

I thank the authors for their significant contribution to our understanding of heterogeneity measures, and I look forward to their response, which will help ensure the accurate application of their findings in future research.

Authors' contributions
The author read and approved the final manuscript.

Declarations

Competing interests
The authors declare no competing interests.

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