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Letter to the editor regarding "Cardiovascular risk factors in offspring exposed to gestational diabetes mellitus in utero: systematic review and meta-analysis"

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Letter to the Editor

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Dear Editor,

We read with great interest the article entitled "Cardiovascular risk factors in offspring exposed to gestational diabetes mellitus in utero: systematic review and meta-analysis" by Pathirana et al.[1] They concluded that offspring exposed to gestational diabetes mellitus (GDM) have elevated systolic blood pressure, BMI, and glucose. They further disclosed that those exposed to GDM in utero may benefit from early childhood blood pressure measurements. This study has a certain guiding significance for the clinical practice of a wider population including childhood, adolescence, and adulthood. However, some potential concerns need to be carefully considered.

Firstly, in this study, the database search was not comprehensive, except for the mentioned databases, other search information was not described in detail. The results would be more credible if the following databases were included in the process of literature retrieval, such as Web of Science, PsycINFO, ClinicalTrials.gov registry, BIOSIS previews, SAGE, NLM Gateway and Google Scholar, as well as Grey literature databases GreyLit and OpenGrey.[2]

Secondly, two writing errors were found in this article: (1) The total number of participants for BMI z~score is wrong in the summary section. According to the data shown in Fig. 3, it should be 31,485, rather than 8759. (2) Similarly, in Fig. 4 of fasting glucose, the *p* value of chi-squared should be <0.00001, instead of =0.00001 (in the result description section). Although it did not affect the final results, such small mistakes should be avoided in the future.

Thirdly, the heterogeneity was high in this article among the LDL cholesterol ($I^2 = 73\%$), triglycerides ($I^2 = 93\%$), insulin ($I^2 = 89\%$), and glucose ($I^2 = 89\%$). Possible source of heterogeneity should be explored by sensitivity analyses and meta-regression analyses in this study. In addition, the reliability of meta-analysis may be weakened by different types of literature and diagnostic criteria. Therefore, the subgroup analysis should be performed based on the above factors.

Finally, it would be more convincing if the publication bias of all included studies were evaluated by the "Begg's test" or "Egger's test".

In brief, the findings of the presented studies lay basis for future research, and provide a novel guiding significance for the clinical practice. However, further multicenter randomized controlled trials with high quality and larger populations are certainly warranted. We hope that they will find our queries of interest for further research on the field.

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Conflicts of interest. None.

Ethical standards. The authors assert that all procedures contributing to this work comply with the ethical standards and with the Helsinki Declaration of 1975, as revised in 2008, and has been approved by the institutional committees (Liaocheng Pepole's Hospital Research Ethics Board).

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