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LETTER TO THE EDITOR

Comment on: "Effects of interventions with a physical activity component on bone health in obese children and adolescents: a systematic review and meta-analysis"

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Dear Editor,

We have read the article [1] published in your respected journal. It is impressive to see how much obesity affects bone health and how it impacts structured intervention in obese children and adolescents. Evaluating the effectiveness of obesity and structured interventions, such as the physical activity, can enhance the awareness of these factors on bone health for both children and adolescents. However, we have some comments with respect to the procedures and results of this study.

First, the authors employed a non-systematic review of articles with wide and heterogeneous methodological designs, such as randomized control trials and observational studies (cross-sectional and longitudinal), but there were no clear selection criteria regarding the methodological designs of the studies included. Moreover, the evidence of the qualities of the included studies has been assessed by the PEDro scale, which fails to determine the level of evidence, and is why we believe that adapting the GRADE approach is highly recommended and more efficient.

Second, the authors reported Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) in their study, but did not adequately follow the PICO format (P: participants, I: intervention, C: comparison, O: outcomes), and the inclusion criteria did not follow the previous format. Furthermore, the inclusion criteria did not include or measure structured interventions, such as physical activity, as the included articles were experimental and observational studies that measured the bone minerals and mass in healthy children and adolescents.

Third, the study excluded any outcome measurements, which is an essential part of the inclusion criteria. They also used different studies with heterogeneous outcomes and mixed results for their systematic review and meta-analysis. Running a systematic review without full knowledge about the inclusion criteria can lead to problems in assessing the validity, applicability, and comprehensiveness of the systematic review [2].

Finally, the authors included both cross-sectional and longitudinal studies in the review and analysis, which is biased with short outcomes and lacks the random allocation to an intervention in the experimental element [3]. We highly believe that if they had used sub group analysis that it would significantly reduce any chance of bias in the study.

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Compliance with ethical standards

Conflict of interest The author(s) declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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