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RESPONSE TO "SPINAL MANIPULATIVE THERAPY AND SPORTS PERFORMANCE ENHANCEMENT: A SYSTEMATIC REVIEW"

To the Editor:

I read with interest the recent paper entitled "Spinal Manipulative Therapy and Sports Performance Enhancement: A Systematic Review."[1] This study investigated a relevant topic given the competitiveness and physical demand in sporting environments. This systematic review has an important role in identifying main methodological difficulties and directing future research for methodological designs with higher quality.

I have a concern about the methodology in this paper. The results of some studies included in the review suggest that spinal manipulative therapy (SMT) can improve outcomes related to sports performance, but some of these findings are based on within-group differences. In Table 3, it is shown that the handgrip strength of judokas evaluated in the clinical trial developed by Botelho et al[2] increased up to 16.81% after cervical spine manipulation.

I published a systematic review[3] on high-velocity low-amplitude manipulation and athletic performance that analyzed the difference of means and confidence interval (CI) of Botelho et al.[2] My results showed no differences in handgrip strength values between manipulation and sham groups (the highest difference of means was 2.073 kgf in favor of thrust group [95% CI: -13.58 to 9.68]).

Another point I would like to make is about the inclusion criteria in the systematic review.[1] I feel that there was a lack of specificity in determining the comparison criteria based on the patient, intervention, comparison, outcome strategy that allowed the inclusion of the Costa et al study[4] comparing the association of SMT and stretching with only stretching. In this case, the group submitted to SMT and stretching presented an improvement in the outcome related to athletic performance (full-swing); however, this clinical trial does not allow one to identify the isolated effect of SMT.

The authors concluded that 4 of the 7 included studies showed that SMT improved sports performance tests. Among the 4 studies cited are the studies of Botelho et al[2] and Costa et al,[4] making me think that the aforementioned limitations may have partially influenced the final conclusion of this review. I agree with the authors in stating in the conclusion that "SMT enhances sports performance is not supported by current evidence" and that "it needs to be better and more deeply investigated."[1] However, considering the above limitations, I feel it is too subtle to say that "spinal manipulative therapy may be a promising approach for performance enhancement"[1] because the evidence indicates that there is not enough scientific support to use or not to use SMT to improve sports performance.

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RESPONSE TO LETTER TO EDITOR: "SPINAL MANIPULATIVE THERAPY AND SPORTS PERFORMANCE ENHANCEMENT: A SYSTEMATIC REVIEW"

To the Editor:

We are pleased to know about your interest in our paper.[1] We have carefully analyzed your concerns in an attempt to assist in our best capabilities.