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LETTER

Addressing Methodological and Generalizability Challenges in Cervical Rotation-Traction Manipulation (CRTM) for Cervical Radiculopathy [Letter]

Ruixue Wang[1], Mingzhu Xv[2], Lin Yao[3]

[1]Innovation Research Institute of Traditional Chinese Medicine, Shandong University of Traditional Chinese Medicine, Jinan, 250355, People's Republic of China; [2]Shandong University of Traditional Chinese Medicine, Jinan, 250355, People's Republic of China; [3]Institute of Acupuncture and Moxibustion, Shandong University of Traditional Chinese Medicine, Jinan, 250355, People's Republic of China

Correspondence: Lin Yao, Changqing Campus, Shandong University of Traditional Chinese Medicine, No. 4655 University Road, Guyun Lake Street, Changqing District, Jinan, Shandong, People's Republic of China, Email yaolin@sdutcm.edu.cn

Dear editor

We have carefully reviewed the article titled "Cervical Rotation-Traction Manipulation for Cervical Radiculopathy: A Systematic Review and Meta-Analysis of Randomized Controlled Trials" by Feng et al.[1] This meta-analysis provides valuable evidence on the effectiveness of CRTM in alleviating pain and improving cervical mobility for cervical radiculopathy (CR). While we commend the authors for their efforts, we would like to raise several methodological and interpretative considerations to enhance the robustness and applicability of the findings.

Firstly, we noted that significant heterogeneity was reported in key outcomes, including VAS scores (I^2 = 59%) and CROM (I^2 > 70%).[2] Despite subgroup analyses exploring factors such as intervention duration and control group types, other potential contributors to heterogeneity, such as operator proficiency, variations in CRTM techniques, and patient-specific characteristics, remain unaddressed. Standardizing CRTM protocols and conducting sensitivity analyses could help clarify these discrepancies.[3]

Secondly, the GRADE assessment rated most outcomes as low or very low in evidence quality.[4] This was primarily due to insufficient reporting of randomization methods, allocation concealment, and blinding procedures. Given the inherent challenges in blinding manual therapy studies, future trials should consider employing innovative designs, such as sham-controlled interventions, to mitigate bias and improve reliability.[5]

Thirdly, all included studies were conducted in China, which limits the generalizability of the findings to other cultural and clinical settings. Expanding research to international cohorts and diverse healthcare systems would provide a more comprehensive understanding of CRTM's efficacy and safety across different populations.

In conclusion, while Feng et al's work contributes valuable insights into CRTM's role in managing CR, addressing heterogeneity, improving evidence quality, and broadening research generalizability will further solidify its clinical relevance. We encourage future studies to address these issues through rigorous and standardized methodologies.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Feng T, Wang X, Bu H, et al. Cervical rotation-traction manipulation for cervical radiculopathy: a systematic review and meta-analysis of randomized control trials. *J Pain Res*. 2024;17:4055–4070. doi:10.2147/JPR.S481803
2. Langan D. Assessing heterogeneity in random-effects meta-analysis. *Methods mol Biol*. 2022;2345:67–89.

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3. Wieckowski AT, Williams LN, Rando J, Lyall K, Robins DL. Sensitivity and specificity of the modified checklist for autism in toddlers (original and revised): a systematic review and meta-analysis. *JAMA Pediatr*. 2023;177:373–383. doi:10.1001/jamapediatrics.2022.5975
4. Edinger JD, Arnedt JT, Bertisch SM, et al. Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine systematic review, meta-analysis, and GRADE assessment. *J Clin Sleep Med*. 2021;17:263–298. doi:10.5664/jcsm.8988
5. Mahmoud AM. Meta-analysis and GRADE assessment of randomized controlled trials on the efficacy and safety of bimekizumab in psoriatic arthritis patients. *Curr Med Res Opin*. 2023;39:1031–1043. doi:10.1080/03007995.2023.2228613

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