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AUTHOR'S REPLY

Answer to the Letter to the Editor of S. Slatman, et al. concerning "Virtual reality is effective in the management of chronic low back ache in adults: a systematic review and meta-analysis of randomized controlled trials" by V. Kumar, et al. (Eur Spine J [2023]: doi: 10.1007/s00586-023–08040-5)

Vishal Kumar[1] · Arvind Janardhan Vatkar[1] · Mohak Kataria[1] · Sarvdeep Singh Dhatt[1] · Vishnu Baburaj[1]

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I thank the authors of the Letter to the Editor for their constructive criticism and feedback. I would like to address the salient points raised in the letter. The letter points out that the VR interventions that were a part of the included studies differed significantly in aspects such as duration, forms of immersion, settings, and application methods. While we acknowledged these differences in our discussion, the letter suggests that merely mentioning this as a limitation is insufficient. We feel that the diversity in VR interventions is indeed a notable aspect. We agree that VR therapy is not a monolithic treatment but encompasses a range of approaches. However, the primary aim of our meta-analysis was to explore the overall effectiveness of VR-based interventions in managing CLBA rather than to dissect each intervention's individual components. The variability in VR applications reflects the real-world application of these interventions, providing a broader perspective on their potential utility. Future research could definitely benefit from a more focused approach to specific types of VR interventions.

The letter further criticizes the focus on statistically significant differences rather than clinical relevance, suggesting that minimal clinically important differences are more pertinent for practical application. While we do appreciate the emphasis on clinical relevance and understand its importance in translating research into practice, our analysis aimed at establishing a foundation of statistical significance upon which clinical significance could be built. Statistical analysis is the critical first step in understanding the efficacy of any intervention. The results of our study invite further research into the clinical significance of VR-based interventions, which can be explored with focused studies in the future.

The letter finally remarks that our review resembles other reviews on the topic and highlights the need for original, high-quality studies. Our study significantly advances the existing body of the literature, primarily because it is a meta-analysis of randomized controlled trials (RCTs), offering a higher evidence grade compared to previous narrative reviews. We concur that there is a need for high-quality, original research in this field in the form of RCTs. Our study aims to encourage further exploration and refinement in the design and application of VR interventions for chronic pain management.

To conclude, we value the constructive feedback provided in the Letter to the Editor. It highlights crucial aspects of research in VR therapy, emphasizing the need for nuanced, clinically relevant, and high-quality studies. Our manuscript aims to contribute to this evolving field, and we hope it will inspire future research that addresses these critical points.

Declarations

Conflict of interest The authors' have no conflicts of interest to disclose.

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✉ Vishnu Baburaj
drvbms@gmail.com

[1] Department of Orthopaedics, Postgraduate Institute of Medical Education and Research, Chandigarh, India