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Standardization in Spinal Manipulative Therapy Applications; Utilization of Instrumental Support

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To the Editor,

The Therapeutic Use of Spinal Manipulative Practices; Chiropractic, osteopathy, and physiotherapy are among various professional groups that perform these applications for therapeutic purposes. Despite being implemented by different professional groups, practices that minimize the risk of post-application complications are uniformly carried out across these professions. These manual interventions are the cumulative result of clinicians' training and experiences acquired throughout their professional lives. However, when scientific studies are conducted to investigate the effectiveness of these interventions, the primary question that arises is whether every clinician can achieve the same success rate in performing these applications.

Especially in countries like the USA, studies tracking the frequency and success rates of manipulative practices are more common and reliable. Various studies indicate that 30% to 60% of patients with spinal pain seek a specialist for spinal manipulative interventions. Of these patients, 80% receive treatment with spinal manipulative interventions after obtaining a confirmatory diagnosis (1). Despite such a high preference rate, there are very few academic studies that investigate the satisfaction and success rates of the performed treatments. These studies, while measuring satisfaction, have also included criteria such as clinical conditions, financial payments, and similar factors (2). The main reason for the literature's deficiency in this regard is that each clinician adopts different application techniques, using their own objective and subjective assessment tools. This situation hinders the comparability of two different clinicians

Taking all these into consideration, another key aspect in academic studies involving spinal manipulative interventions may be the use of assistive instruments, eliminating the practitioner's manual dexterity. Devices referred to as 'Adjusting Tools' can perform the same procedure repeatedly in each application by delivering specific Newton-force impulses at certain speeds. These devices, with application forces typically ranging from 40 to 380 N, can vary in their application speeds, reaching up to 1/32 of a second depending on the commercial brand (3).

When spinal manipulative interventions are particularly performed using the short-lever thrust method and high-velocity low-amplitude (HVLA) techniques, the main thrust vector involves a posterior-to-anterior force. In other words, if the practitioner's force and speed meet certain standards, the angle of the thrust vector does not significantly impact the primary success (4). Thus, the use of assistive instruments allows the standardization of all necessary parameters. The clinician's only task is to accurately identify the contact point for the application using basic anatomy knowledge. Clinical studies indicate that instrument-assisted manipulative interventions, when appropriately used, can be successful in situations where other manipulative interventions are indicated (5).

In conclusion, when determining the efficacy rates of spinal manipulative interventions in clinical studies, the use of assistive instruments can be presented as an option for researchers to ensure standardization of studies, provide the most optimal healthcare to patients, minimize injury and side effects, and enhance the reliability of studies after publication to reduce criticisms.

Conflicts of interest

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