Response the letter to the editor: Incorrect use of PNF-techniques and principles, a response to: Areeudomwong P, Buttagat V. Braz J Phys Ther. 2018

We would like to sincerely thank you for the opportunity to extensively discuss based on the comments of Smedes et al.[1] regarding to our recently published article,[2] which examined the effects of PNF training including techniques on rhythmic stabilization, combination of isotonics, chop, and lift in working-age people who suffering from chronic low back pain.

In that letter to editor, the authors have been commented on our publication that the performed PNF techniques have been deviated from the original methods which proposed by Knott and Voss,[3] and Adler et al.[4] Furthermore, the figure describes each technique which illustrated was not matched with the text what we wrote.

The authors stated that the description and figure of rhythmic stabilization in our article should be stabilizing reversal because of Figure 1a demonstrated a grip variation. At this point, when we considered Figure 1, it is clearly defined for demonstrating rhythmic stabilization without a grip variation. The figure showed rhythmic stabilization to facilitate co-contraction of both trunk flexors and extensors. The description of rhythmic stabilization technique in our article was shorten due to the word limitation of the journal of publication, the concept of this technique and hand grip placement were not altered from the original that established by Adler et al.[4] In our experiment, the therapist informed the patients to resist agonists isometrically using one hand. When the patients responded ultimately, another hand was started to resist antagonists without movement as the resistance changes by commanding the patient ''stay still, match the therapist again in the front or the back''.

We do agree with the comments on Figure 1b for the unclear situation on eccentric contraction facilitation. Indeed, we did that in our treatment session but did not put the figure into the manuscript because of the number of figure has been limited by the journal of publication. In brief, after complete concentric stimulations of trunk flexors and extensors at the end of a desired range of motion, the therapist applied resistance for trunk flexors or extensors in eccentric fashion and asked the patients to move slowly to the starting position without relaxation between the different types of muscle activations and the hands remain on the same surface.

For figure 1c, the chop and lift used in our study were based on dynamic reversals to facilitate the controlled movements.

We disagree with the comments on our study for the incorrect using of PNF-techniques and mistaking principles. We strictly followed the PNF-concept for promote trunk stabilization and controlled trunk mobility that proposed problems of chronic low back pain.[4–9] Manual contact via lumbrical grip, visual cue and approximation, and traction were also used for stimulating desired responses.

Finally, we would like to thanks the authors for giving us the opportunity to describe and provide more information of our study to the readers who are interested in PNF techniques for applying to their treatments for eliminating the suffering of chronic low back pain patients.

References

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