

Effects of thoracic spine and rib mobilization with exercises on pain and range of motion among athletes with low back pain

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Abstract

Background: Low back pain (LBP) is a common symptom that will affect 80% of the population and it is also prevalent in athletes where up to 84% will be affected in the life time. There are numerous treatments being recommended in order to treat LBP. One of the recommendations is mobilization technique which can help to reduce pain and improve ROM. Moreover, active approach such as exercises is recommended as it helped in spine mobility and sensory perception too.

Objectives: To find the effect of thoracic spine and rib mobilization with exercises on pain and range of motion among athletes with low back pain.

Methods: Quasi-experimental design with convenient sampling was implemented. 37 subjects were recruited once they were eligible for the study. Before the intervention, measurement of NPRS and trunk ROM were taken. Then, the subjects will receive 8 weeks of treatment including joint mobilization and thoracic mobility exercises. NPRS and trunk ROM will be measured again once they had finished the study.

Results: The result showed significant change in NPRS from 5.35 ± 1.19 to 3.19 ± 1.13 . After 8 weeks of the intervention, the low back pain has reduced. Besides that, great improvement on the ROM was also seen especially in trunk flexion and right rotation with $p < 0.001$ although right lateral flexion of the trunk showed the least changes among all the trunk movement.

Conclusion: In summary, thoracic spine and rib mobilization with exercises helped to reduce pain and improve ROM among athletes with low back pain. Hence, this approach should be recommended to include into the clinical practice to treat patients with low back pain.

Biography

Alvin Lim has completed his Bachelor of Physiotherapy from Anglia Ruskin University, UK. He is the co-founder of VL Therapy and Wellness, Malaysia. He has been treating athletes and avid fitness enthusiasts in his career such as golf, tennis, martial arts, Crossfit, Olympic weightlifting, and football. He was invited to local TV and podcast as a guest speaker to share about physiotherapy. Besides that, he also took part in World Physiotherapy Network for Amputee Rehabilitation Project (2015) on Physiopedia.



[7th Global Conference on Physiotherapy, Physical Rehabilitation and Sports Medicine](#) | March 11, 2021

Citation: Alvin Lim, Effects of thoracic spine and rib mobilization with exercises on pain and range of motion among athletes with low back pain, Physiotherapy Congress 2021, 7th Global Conference on Physiotherapy, Physical Rehabilitation and Sports Medicine | March 11, 2021, 03