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Combined Effects of Posterior Pelvic Tilt and Core Stability Exercise on Excessive Lumbar Lordosis and Pain among Subjects with Non-specific Low Back Pain

Jessika Rajamony[1], Ishwarya Vardhini C[2], Senthil Purushothaman[3]

[1]Undergraduate Student, [2]Assistant professor, [3]Professor/Dean Incharge, Chettinad School of Physiotherapy, Chettinad Academy of Research and Education (CARE), Chettinad Hospital and Research Institute (CHRI), Kelambakkam, TamilNadu, India.

Email Id: ishwaryavardhinic@gmail.com

Abstract

Introduction: A common public health concern is low back pain, which is discomfort in the lumbar spine. It may or may not be specific. Hyperlordosis involves an exaggerated lumbar curve, causing the pelvis to tilt forward and resulting in pelvic misalignment syndrome. Changing the pelvic tilt affects the length of the muscles surrounding the spine and the hip joint and a significant amount of stress on the lumbar vertebrae. The most noteworthy is the reciprocal relationship between pelvic tilt and lumbar lordosis, which states that an increase in pelvic tilt is linked to increased lumbar lordosis.

Methods: 30 subjects were selected for the study based on inclusion and exclusion criteria. Core stability exercise and posterior pelvic tilt exercise were combined as interventions. The subject's lumbar lordosis angle and pain were taken as outcome measures and assessed using the handy level application and VAS scale. The study was 4 weeks, after which the results were documented for statistical analysis.

Results: The Mean value for Pre-test LLA is 50.799, and for post-test LLA is 47.226. The mean value for pre-test VAS is 4.966, and for post-test VAS, it is 2.366. The results showed significant changes in lumbar lordosis angle and VAS values.

Conclusion: The combined implementation of core stability exercises and posterior pelvic tilt exercises affects lumbar lordosis and pain in subjects with nonspecific low back pain.