

## Effects of Kinesio Taping Combined with Postural Retraining Exercises on Forward Head Posture and Neck Pain in University Students with Text Neck Syndrome: A Randomized Controlled Trial

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### Abstract

Text Neck Syndrome (TNS) is becoming increasingly prevalent among university students due to prolonged use of digital devices, which is associated with forward head posture (FHP), neck pain, and functional limitations. Postural retraining exercises (PRE) are widely used in management, and kinesio taping (KT) has been proposed as an adjunct; however, its effectiveness in TNS remains unclear. This study aimed to examine the effects of PRE alone and PRE combined with KT on neck pain, posture, and disability, and to compare the effectiveness of both interventions among university students with TNS. Thirty-eight participants were randomly assigned to a control group (CG) receiving PRE or an experimental group (EG) receiving PRE plus KT. Both groups attended three sessions per week for four weeks. Outcomes were craniovertebral angle (CVA), Visual Analogue Scale (VAS), and Neck Disability Index (NDI), were assessed at baseline and post-intervention. Data were analyzed using two-way mixed ANOVA. Thirty-five participants completed the study (CG: n = 17; EG: n = 18). Both groups showed significant improvements in posture, pain, and disability over time ( $p < .001$ ). Significant time  $\times$  group interaction effects were found for CVA ( $p < .001$ , partial  $\eta^2 = .327$ ) and VAS ( $p < .001$ , partial  $\eta^2 = .410$ ), with greater improvements in EG. No significant interaction was observed for NDI ( $p = .598$ ), indicating similar disability improvements across groups. Adding KT provides additional benefits for pain reduction and postural correction but does not enhance disability outcomes.

### Keywords

Text neck syndrome, postural retraining exercise, kinesio taping, forward head posture.

