

CODE: ABS 050

## **EFFECT OF TRANSCUTANEOUS TIBIAL NERVE STIMULATION ALONG WITH FELDENKRAIS EXERCISE ON URINARY INCONTINENCE AMONG INDIVIDUAL WITH TYPE II DIABETES MELLITUS.**

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**Background:** Urinary incontinence is a common and distressing complication among individuals with Type 2 Diabetes Mellitus (T2DM), often resulting from diabetic neuropathy and impaired bladder control. Conventional management includes pharmacological and behavioural interventions; however, non-invasive neuromodulation techniques such as Transcutaneous Tibial Nerve Stimulation (TTNS) combined with Feldenkrais exercises may enhance bladder function, pelvic floor coordination, and overall quality of life.

**Purpose:** To evaluate the combined effect of Transcutaneous Tibial Nerve Stimulation (TTNS) and Feldenkrais exercises on urinary incontinence in individuals with Type 2 Diabetes Mellitus.

**Methods & Materials:** A case series design was employed on five individuals with T2DM and symptoms of urinary incontinence. Participants underwent a pre-test assessment using the ICIQ-SF questionnaire to evaluate severity. The intervention consisted of TTNS sessions along with Feldenkrais exercises conducted over a specific duration. Post-intervention assessment was again carried out using the same questionnaire. Statistical analysis was performed to compare pre- and post-test scores.

**Result:** A significant reduction in ICIQ-SF scores was observed post-intervention, indicating improvement in urinary continence and reduction in leakage frequency. Participants also reported enhanced awareness of pelvic control and better functional mobility. These findings suggest that the combined approach of TTNS and Feldenkrais exercise can effectively improve bladder control among diabetic individuals.

**Conclusion:** The result suggests that TTNS effectively modulated the neural control of the bladder by stimulating the nerve, which shares a common spinal segment with pelvic floor and bladder intervention. Additionally, the Feldenkrais exercise which focuses on body awareness, gentle movement, postural control, enhanced pelvic floor muscle coordination and sensorimotor integration. The present case series concludes that Transcutaneous Tibial Nerve Stimulation (TTNS) combined with Feldenkrais exercises is an effective and non-invasive intervention for reducing urinary incontinence among individuals with type 2 diabetes mellitus.

**Keywords:** Transcutaneous Tibial Nerve Stimulation, Feldenkrais Exercise, Urinary Incontinence, Type 2 Diabetes Mellitus, ICIQ-SF.