

Effectiveness of Strategy-Specific Balance Training with Sensory Feedback in Diabetic Neuropathy Patients

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Abstract

Introduction: Diabetic neuropathy causes illness, pain, and sensory loss, mainly in the lower limbs. It affects 50% of diabetic patients and causes functional imbalance. Impaired foot sensation, proprioception, and joint position perception contribute to imbalance in chronic neuropathic patients, causing postural instability and reduced balance. Balance disorders affect 16% of diabetics and worsen with disease severity. Addressing imbalance is crucial for individuals with DPN, impacting reflexes, coordination, and gait control.

Methods: A study on 30 subjects aged 30-60 examined balance disturbances and fall risk. It was conducted at Sri Ramachandra Institute, Department of Endocrinology, and old age homes in Chennai. Subjects were divided into intervention (n=15) and control groups (n=15) based on inclusion criteria. A DNS score of 1+ was included in the mini-best outcome measures assessment.

Results: Statistical significance was found in both groups ($p < 0.001$) using strategy-specific balance and conventional training. The post-test score increased from 15.3 to 19.4, showing significant differences between the groups.

Conclusion: Strategy-specific Balance Training and Conventional exercise are efficacious in improving balance and reducing the risk of falls in Diabetic Neuropathy patients.