

## The Effects of Physiotherapy Management on the Gait of Post-Stroke Ambulatory Hemiparetic Patients in the Neurology Unit at the National Hospital of Sri Lanka (NHSL)

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Stroke is a major global health concern, being a leading cause of disability worldwide and the second leading cause of death. The Global Stroke Fact Sheet underlines the increasing lifetime risk of stroke, affecting one in four individuals. In Sri Lanka, the burden of stroke is on the rise, particularly among the young. Rehabilitation interventions are crucial for improving gait, balance, and the overall well-being of stroke survivors. Physiotherapy techniques such as lower limb strengthening, trunk stability training, and gait training have shown significant potential in promoting post-stroke recovery. This longitudinal study, conducted at the Physiotherapy Unit of the Neurological Institute, National Hospital of Sri Lanka, aimed to assess the impact of physiotherapy on gait among ambulatory hemiparetic patients post-stroke (Modified Rankin Scale 1-3). The study included 12 participants (58.3% male, mean age 58.6 years), using convenient sampling. Data was collected via questionnaires and the Timed Up and Go (TUG) test at three points over 4 to 5 months. Statistical analysis, including parametric and non-parametric tests, showed significant improvements in gait speed and balance over time. TUG scores decreased significantly by 13.10s and 8.10s at one and three months respectively ( $p=0.005$ ,  $0.002$ ), indicating improved functional mobility. Age and education levels did not substantially affect TUG scores. The study concludes that physiotherapy interventions played a crucial role in improving post-stroke gait. However, it suggests further research is needed to delve deeper into the specific effects of these interventions.

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