

Abstract Template

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TITLE OF ABSTRACT

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Introduction

Stroke remains one of the leading causes of long-term disability worldwide. Despite advances in rehabilitation, many survivors continue to experience deficits in balance, gait, and functional mobility (Smith et al. 2025). Recent evidence suggests that task-specific interventions targeting postural control may enhance neuroplasticity and improve functional outcomes (Jones & Patel 2024).

Objective(s)

To investigate the effects of an eight-week balance-training program on postural stability and functional mobility in chronic stroke survivors.

Methods

Thirty-two participants with chronic stroke (mean age: 62.4 ± 8.7 years) were randomly assigned to either an intervention group ($n = 16$) or a control group ($n = 16$). The intervention group completed an eight-week supervised balance-training program three times per week.

Outcome measures included:

- Berg Balance Scale (BBS)
- Timed Up and Go Test (TUG)
- Functional Reach Test (FRT)

Measurements were collected at baseline and following completion of the intervention.

Results

Participants in the intervention group demonstrated significant improvements in all outcome measures compared with controls.

The Berg Balance Scale improved by 18.2% ($p < 0.01$), while Timed Up and Go performance improved by 14.7% ($p < 0.05$). Functional Reach Test scores increased by 21.5% ($p < 0.01$). No adverse events were reported during the intervention period.

Table 1. Changes in Functional Outcomes

Variable	Baseline	Post-Intervention	p-value
BBS Score	38.4 ± 5.2	45.4 ± 4.7	<0.01
TUG (s)	18.2 ± 4.1	15.5 ± 3.8	<0.05
FRT (cm)	19.4 ± 4.6	23.6 ± 4.1	<0.01

Figure 1. Changes in Berg Balance Scale Scores
Insert figure here.

Conclusion

The findings suggest that an eight-week balance-training program can significantly improve postural stability and functional mobility in individuals with chronic stroke. These results support the integration of targeted balance interventions into neurorehabilitation programs and warrant further investigation through larger multicenter studies.

Conflict of Interest Statement

The authors declare no actual, potential, or perceived conflicts of interest related to this work.

References

Smith, J., Brown, P., & Wilson, T. (2025). Balance interventions in stroke rehabilitation: A systematic review. *Journal of Neurorehabilitation*, 42(3), 211–225.

Jones, R., & Patel, M. (2024). Postural control and neuroplasticity following stroke. *Clinical Neuroscience Review*, 18(2), 85–97.

Submission Checklist

- ☐ Young Investigator Award status indicated
- ☐ Corresponding author identified
- ☐ Maximum 500 words (excluding references)
- ☐ 3–5 keywords included
- ☐ Figures and tables within permitted limits
- ☐ Conflict of interest statement included
- ☐ References formatted according to APA style