

Relationship between Balance Confidence, Social Participation and Determinants of Change in Individuals with First Stroke: A Longitudinal Analysis

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Introduction: Stroke has devastated many people's lives leading to restrictions in participation particularly in the social domain.¹⁻³ Previous studies⁴⁻⁷ have identified varying patterns of change in participation among survivors 6 months to 4 years following stroke; however, the knowledge about factors affecting this change is still lacking. Balance confidence could prove to be an important factor. Studies of older adults have found that those with lower balance confidence tend to decline more in their function and health.^{8,9} Although it has been suggested that individuals with stroke experience reduced balance confidence,¹⁰ little is known about its contribution to restrictions in participation.

Objectives: This study determined how balance confidence contributes to different patterns of change in social participation in individuals with first stroke 1 year following discharge from rehabilitation. **Methods:** This was a prospective cohort study of individuals with a first ever stroke and age- and sex- matched controls. Subjects were assessed at baseline (1 month post discharge from rehabilitation for stroke), 3, 6, and 12 months after baseline. Balance confidence, social participation, balance and mobility performance, psychological function, and important contextual variables were measured. A hierarchical linear model will be developed to analyze how social participation changes over time and if initial status or rate of change is associated with balance confidence, performance measures and contextual variables. **Preliminary Results:** 98 subjects with stroke and 98 controls participated. Mean social participation was significantly lower in the stroke group than controls across all time points ($p < 0.0001$). Exploratory analysis revealed inter-individual variations in initial status and rate of change in social participation over time in the stroke group. The final model will determine if balance confidence is an important factor in explaining these differences. **Conclusion:** Social participation is an important outcome and is lower in people in the first year of their stroke. Clinicians need to be aware of modifiable factors affecting participation. **Contribution to Practice/Evidence Base of Occupational Therapy:** If balance confidence is found to be an important factor, the findings of this study would help steer the development of appropriate interventions for reduced balance confidence.