

## Stroke survivors' experiences of upper limb somatosensory retraining: An Interpretative Phenomenological Analysis study

Megan Turville<sup>1,2</sup>, Johanne Walker<sup>3</sup>, Leeanne Carey<sup>1,2</sup>

<sup>1</sup>*La Trobe University, Melbourne, Victoria, Australia,* <sup>2</sup>*Florey Institute of Neuroscience and Mental Health, Melbourne, Victoria, Australia,* <sup>3</sup>*Deakin University, Geelong, Victoria, Australia*

**Introduction:** Upper limb somatosensory impairment occurs commonly after stroke and has negative consequences for daily performance. Sensory discrimination retraining is an evidence-based treatment option available to assist people to regain somatosensory skills. Retraining may be demanding and effortful for stroke survivors, yet no research has explored whether people perceive this treatment as useful in their recovery of somatosensory impairment and participation in life after stroke.

**Objective:** The aim of this study was to explore stroke survivors' experience of upper limb somatosensory discrimination retraining, in particular SENSE therapy. **Method:** A qualitative methodology was used within the context of a randomised control trial of sensory retraining: the CoCONNECT trial. Participants completed a treatment program, known as SENSE, to retrain upper limb sensory discrimination and recognition skills. Eight stroke survivors were interviewed on their experience of this therapy, and data was analysed using Interpretative Phenomenological Analysis (IPA).

**Results:** Stroke survivors were articulate about their experience of sensory retraining. Five themes represented peoples' experience of upper limb sensory retraining after stroke: (1) loss of sensation and desire to reclaim normality; (2) harnessing positivity in the therapeutic relationship; (3) facing cognitive and emotional challenges; (4) distinct awareness of gains and differences in bodily sensations; and (5) improved functioning: control and choice in daily performance.

**Conclusion:** Stroke survivors perceived sensory retraining was a valuable treatment that provided them with improvements in sensation, functional arm use, as well as daily performance and participation in life.