



## Potturi Upendranatha Reddy

Principal Physiotherapist, Rehabilitation Services, Woodlands Hospital

### Research Interests:

- Stroke Rehabilitation
- Community participation; evaluation and service development
- Prevention of stroke and behavior modifications
- Technology in stroke rehabilitation
- Artificial intelligence in stroke rehabilitation

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## Biography

Potturi Upendranatha Reddy is a Principal Physiotherapist at Woodlands Health, Singapore, with over two decades of experience in clinical practice, research, and teaching across acute, subacute, community, and integrated care settings. He is currently pursuing a PhD at The University of Queensland, where his doctoral research examines meaningful community participation after stroke. His academic training includes a Master of Physiotherapy in Advanced Neurology and a Bachelor of Physiotherapy from The Tamilnadu Dr. M.G.R Medical University, India.

Mr Reddy has led and collaborated on research in neurological rehabilitation, stroke recovery, activity engagement among older adults, physiotherapy workforce development, and secondary prevention. His projects have been supported by competitive funding, including SPROUTS, CGH, and AIC research grants. He has presented at major scientific meetings such as the Australian & New Zealand Stroke Organisation Conference, the World Confederation for Physical Therapy Congress, and the Singapore Allied Health Conference.

He previously served as Associate Faculty at the Singapore Institute of Technology, contributing to physiotherapy education and clinical training. His clinical expertise includes neurological rehabilitation, vestibular therapy, robotic exoskeleton gait training, lymphedema management, and advanced physiotherapy assessment frameworks. His current work explores technology-enabled rehabilitation and the integration of artificial intelligence to enhance meaningful participation after stroke.

## Selected Publications

- Understanding meaningful participation after stroke: a qualitative systematic review  
Potturi, Upendranatha Reddy, Hoyle, Melanie, Brauer, Sandra, Kee, Bernadine Teng Sze, Kuys, Suzanne, and Mahendran, Niruthikha (2025). Understanding meaningful participation after stroke: a qualitative systematic review. Australian and New Zealand Stroke Organisation (ANZSOC2025), Hobart, TAS Australia, 2-5 September 2025. Basel, Switzerland: S. Karger.
- Do physical function in nursing home residents change during their stay?  
Yong, L., Upendranatha Reddy, P., Tan, J., Avers, D., Ong, P.-H., and Wong, W.-P. (2020). Do physical function in nursing home residents change during their stay?. The Journal of Nursing Home Research Sciences 6 6-13.  
<https://doi.org/10.14283/jnhrs.2020.2>
- Effects of visual feedback and motor imagery on reducing compensatory movement strategies in hemiplegic subjects: a pilot randomized controlled trial  
Upendranatha Reddy, P., Pei Pei, J.T., Koh, J., Samsuddin, F., Ganguly, R., and Assam Nkouibert, P. (2015). Effects of visual feedback and motor imagery on reducing compensatory movement strategies in hemiplegic subjects: a pilot randomized controlled trial. Confederation for Physical Therapy Congress 2015, Singapore, 1-4 May 2015. London, United Kingdom: Elsevier.<https://doi.org/10.1016/j.physio.2015.03.1556>

## Notable Research Awards & Grants from Past 5 Years

Name of Awards & Grants	Year Obtained
SPROUTS Grant	2025
SPROUTS Grant	2022

## Translating Research Into Healthcare

- Led the development and implementation of a bedside activity toolkit to increase activity engagement among hospitalised older adults.
- Developed and evaluated service models for community reintegration after stroke, contributing to WH's rehabilitation pathways.
- Integrated mental imagery and activity-based rehabilitation strategies into physiotherapy practice through department-wide training.

- Involved in co-designing health system strategies to enhance meaningful participation of adults living with stroke (ongoing).