

Clinical reasoning for training walking after Stroke

Presenters*

Karl Schurr



Karl is a physiotherapy clinician, researcher and educator. He has over 30+ years' experience in stroke, brain injury and aged care rehabilitation in Australia and the UK.

Research and publications: Karl has published 27 peer reviewed journal articles and been awarded over \$1 million in research funding. His research focuses on methods to increase exercise intensity, dosage, and evaluating the effectiveness of rehabilitation interventions for stroke survivors and older people.

Simone Dorsch



Simone is a physiotherapy clinician, researcher and educator. She has 20+ years experience in stroke, brain injury and aged care rehabilitation. Simone is a senior lecturer at the Australian Catholic University in North Sydney.

Research and publications: Simone has published many peer reviewed journal articles. Her research focuses on the relationship between loss of strength and activity limitations and strategies to increase amounts of practice in rehabilitation.

Kate Scrivener



Kate is a physiotherapy clinician, researcher and educator. She has 15+ years experience in stroke, brain injury and aged care rehabilitation. Kate is a senior lecturer at Macquarie University in Sydney, Australia and the Lead Neurological Physiotherapist at Concentric Rehabilitation Centre.

Research and publications: Kate has published many peer reviewed journal articles. Her research focuses on measurement and dosage of rehabilitation practice, and strategies to increase practice outside of therapy including group sessions and use of technology.

Joanne Glinsky



Jo is a physiotherapy researcher and educator. She has 20+ years experience in neurological rehabilitation including stroke and spinal cord injury. Jo is a post-doctoral researcher at the University of Sydney and an Associate Professor at Macquarie University.

Research and publications: Jo has published many peer reviewed journal articles. Her research focus is randomised controlled trials and systematic reviews of physiotherapy interventions for people with injuries and disabilities. Her education focus is the development of resources for clinicians and students treating people with neurological conditions.

*The workshop is run with two presenters

Learning outcomes

At the completion of this workshop, participants should be able to;

1. Explain the kinematics and kinetics of walking
2. Identify the common kinematic deviations seen in people with stroke in walking
3. Discuss the potential impairments that can contribute to the common kinematic deviations seen in people with stroke in walking
4. Describe training strategies to address the common kinematic deviations seen in people with stroke in walking

Pre-work

- Pre-reading – definitions, relevant articles
- Recorded lecture – biomechanics of walking
- Recorded lecture – impairments after Stroke
- Optional recorded lecture – Biomechanics of the trunk

Session one – 4 hours

Timetable

Time	Content	Format
15 mins	Intro - welcome Kahoot quiz	Large group
15 mins	Discussion <ul style="list-style-type: none">• Normal biomechanics• Critical components - kinematics and kinetics (ie soleus, hip flexion in swing)	Large group Informal discussion
30 mins	Teach each other the biomechanics	Small group work
15 mins	Discussion – issues arising	Large group Informal discussion
45 mins	Video analysis – modelling the process <ul style="list-style-type: none">• identifying kinematic deviations• decision making – main problems	Large group
15 mins	Break	
30 mins	Video analysis - 2 new videos Worksheets to guide process	Small group work
15 mins	Discussion	Large group
45 mins	Video analysis <ul style="list-style-type: none">• potential impairments	Large group

	<ul style="list-style-type: none"> • testing potential impairments 	
15 mins	Discussion <ul style="list-style-type: none"> • Planning for case study 	Large group

Session two – 4 hours

Pre-work

- Pre-reading – training walking after Stroke
- Recorded lecture – evidence-based intervention for walking after Stroke

Timetable

Time	Content	Format
45 mins	Presentation of case studies <ul style="list-style-type: none"> • Analysis of movement problems 	Small group work
60 mins	Presentation <ul style="list-style-type: none"> • Features of effective training Video - case studies	Large group
15 mins	Discussion	Large group
15 mins	Break	
45 mins	Discussion - case studies <ul style="list-style-type: none"> • prioritising training • delivery of practice • amounts of practice • progression of practice • measurement 	Large group
45 mins	Presentation of case studies <ul style="list-style-type: none"> • What to train • What to measure 	Small group work
15 mins	Discussion <ul style="list-style-type: none"> • Planning for change 	Large group

<p>Purpose of this Document</p>	<p>This document provides information for hospitals, health services and organisations planning to host a Zoom workshop on Clinical reasoning for training walking after Stroke.</p> <p>For more details: www.StrokeEd.com (Facebook page: StrokeEd)</p>
<p>About the StrokeEd Collaborators</p>	<p>Established in 2011, the StrokeEd collaborators aim to provide evidence-based workshops that improve the skills, knowledge and practice of students and neuro-rehabilitation therapists, and influence the delivery of physical rehabilitation services to people in rehabilitation.</p> <p>All members of the StrokeEd Collaboration are:</p> <ul style="list-style-type: none"> • Experienced clinicians, educators and active researchers • Recognised leaders in their profession • Higher research degree graduates (PhD or masters by research) • Providers of rehabilitation in public and/or private health, including tele-rehabilitation • Registered physiotherapists and occupational therapists <p>Our Mission: To teach evidence-based stroke rehabilitation, to optimise recovery post-stroke</p> <p>Our Vision:</p> <ul style="list-style-type: none"> • That graduate physiotherapists and occupational therapists have the skills, knowledge, confidence and competence to routinely deliver evidence-informed physical rehabilitation • That stroke survivors receive prompt, evidence-based rehabilitation regardless of their geographic location, ability to pay, age or the experience of treating therapists
<p>Background to the Workshop</p>	<p>This workshop was developed in response to requests from clinicians for a structured approach to the clinical reasoning for training walking after Stroke. This workshop aims to assist clinicians to develop their clinical reasoning skills by revising the biomechanics of walking, discussing a structured approach to the analysis of walking problems and practicing the clinical reasoning process using video case studies. Between the two sessions clinicians are expected to prepare a case study to discuss at the second session. This enables them to practice the clinical reasoning approach and receive feedback.</p>
<p>Who is the target audience?</p>	<p>Physiotherapists and occupational therapists and exercise physiologists who are working with older people and/or people with neurological conditions, in inpatient, outpatient or community settings and in private or public settings.</p>

Duration of the workshop	The Zoom workshop runs for two 4-hour sessions. The sessions can be run at a time convenient to the presenters and the workshop organisers.
Number of participants	Maximum of 30 registrants. Numbers are restricted to allow small group work to be organised in Zoom breakout rooms and to facilitate discussions about the pre-prepared case presentations that are held in the second session.
Costs	<p>Presenter Fees for 2022</p> <p>Australia \$2000 per presenter plus 10% GST x 2 presenters = \$4400 total</p> <p>Overseas \$2000 per presenter = \$4000 total</p>
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