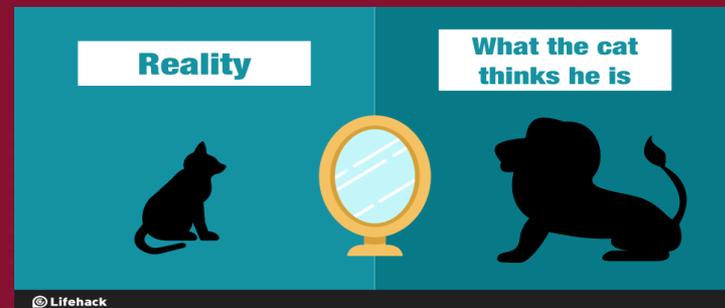




Examining the relationship between self awareness, cognition and function in post stroke recovery: A pilot Study

Toni Heinemann
Acting Inpatient Coordinator
Occupational Therapy
Osborne Park Hospital



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OPH Stroke OT Team, SCGH OT Department, stroke survivors and families

Background



- What is self awareness?

‘the capacity to perceive the self in relatively objective terms whilst maintaining a sense of subjectivity’
(Schacter, 1991)

- Acknowledges that self awareness has two aspects
 1. The objective knowledge of existence of deficits
 2. Understanding a personal significant of those deficits

Self Awareness

- Neurological
 - Anosognosia/Anosodiaphora – denial of deficit
 - e.g. hemiparesis, inattention, indifference in deficits despite acknowledging their presence
 - Generalised disorder of self awareness – social, behavioural, cognitive – often frontal lobe origin
- Psychological
 - a response to grief/adjustment/loss



Katz et al, 2002

Self Awareness

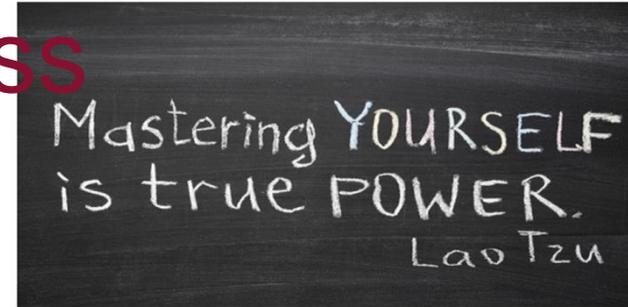
- Poor self awareness:
reduced engagement in rehabilitation
poorer functional outcomes
- Increased **risk of falls** and higher levels of risk taking behaviour



Dolores Villalobos et al, 2019, Pederson et al, 1996

Why look at self-awareness

- To engage clients and families
- Takes time
- Needs help – emotional support, grief
- Reduce risk of falls and complications
- High priority within rehabilitation programs BUT was not routinely screened in subjective manner
- Shown to improve performance in ADL's and occupations



Aims

Primary aim: To examine the relationship between self-awareness and functional outcomes for stroke survivors over 65 in the 3 months following stroke.

Secondary aims:

1. To determine the feasibility of utilising the PCRS as a measure of self-awareness within the first three months of stroke recovery
2. To study the correlations in patient scores between (i) the Motor Functional Independence Measure (mFIM) and the Patient Competency Rating Scale (PCRS), (ii) the Montreal Cognitive Assessment (MoCA) and the Patient Competency Rating Scale (PCRS) and (iii) the correlations between patients and clinicians for the Patient Competency Rating Scale (PCRS).
3. To collect pilot data to underpin a future larger study aimed at the development of a modified short screening tool for self-awareness in acute stroke care and sub-acute recovery.

Methods

- Pilot study.
- Prospective, observational cohort
- Ethics approval from SCGOPH health group. Ethics number: 00297.



Hypothesis

- Individuals with poor awareness of deficits (as measured by the PCRS) will have poorer functional and cognitive outcomes than those with good awareness of deficits

Outcome Measures

- PCRS, MOCA, mFIM

Participant criteria

Inclusion

- Be admitted as a patient to the SCGH Neurology Ward
- Had an ischemic or haemorrhagic stroke
- Be alert, consent
- Be over 65 years of age
- Live within the SCGH-OPH rehabilitation catchment
- Those who have received thrombolysis or undergone clot retrieval will also be included in the study

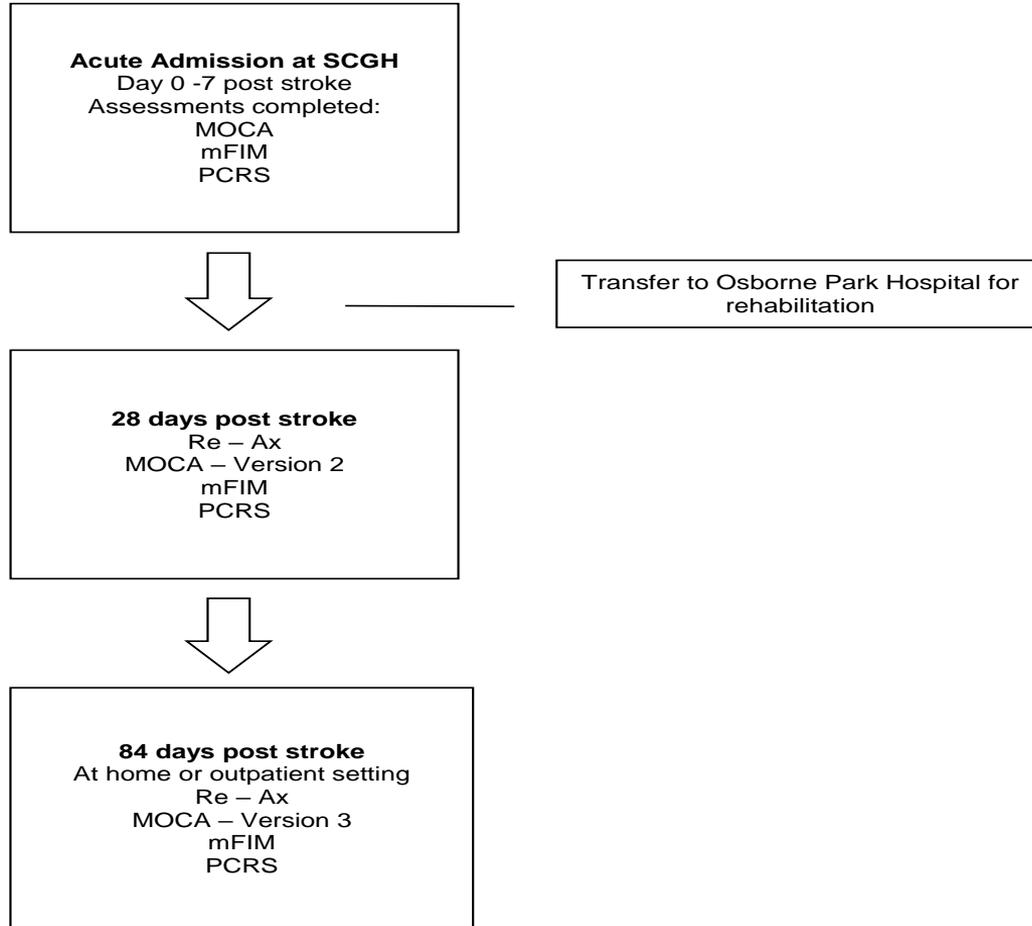
Exclusion

- Moderate-severe expressive, receptive or mixed (expressive and receptive) aphasia, as determined through consultation with the acute speech pathologist based on their clinical examination.
- A documented diagnosis or pre-existing dementia or depression, or mood disorders

Modified PCRS (patient competency rating scale)

- Good reliability and criterion validity (Barskova & Wilz, 2006) for longitudinal studies on stroke for patients and carers.
- Limited studies in stroke population clinical use
- 30 question – total of 150
- Nominal rating scale (0-5)
- Patient, therapist and carer completes
- Can be scored either by
 1. Total difference
 2. Difference in certain domains
 3. Difference across specific questions

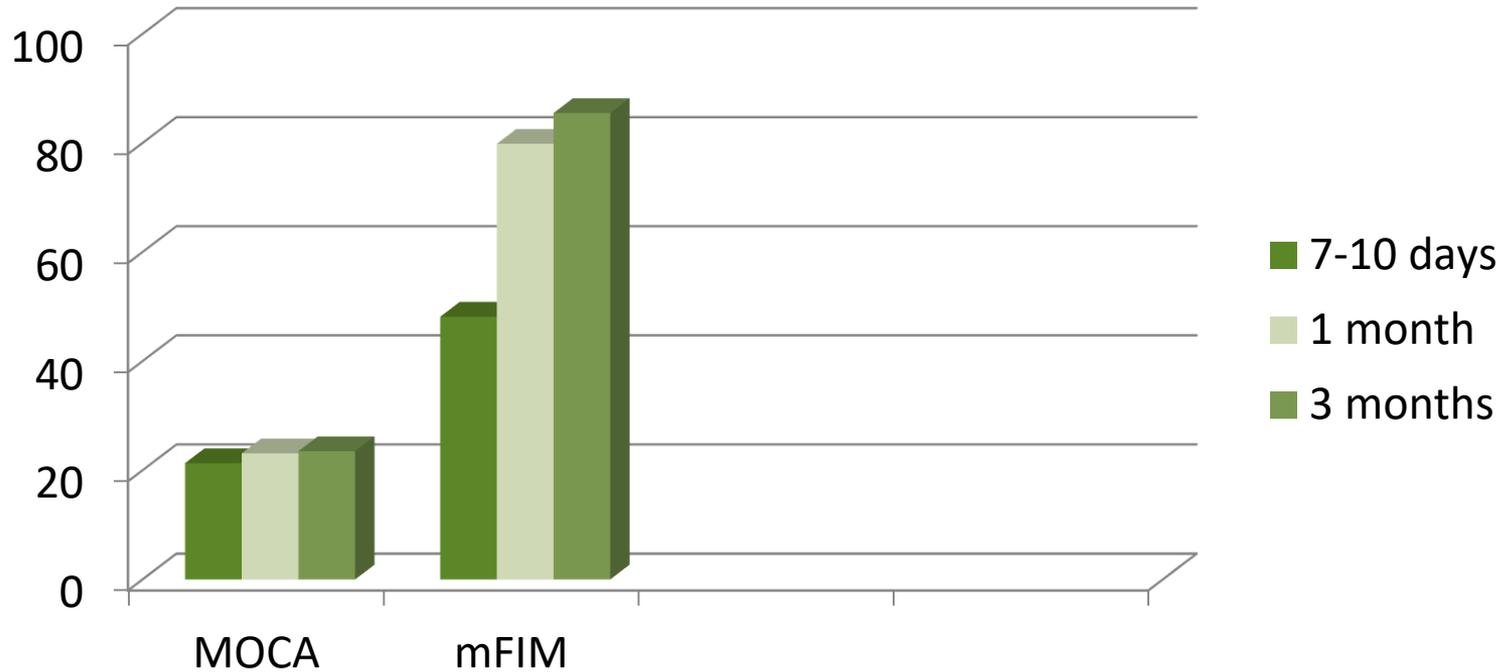
Assessment Flow Chart



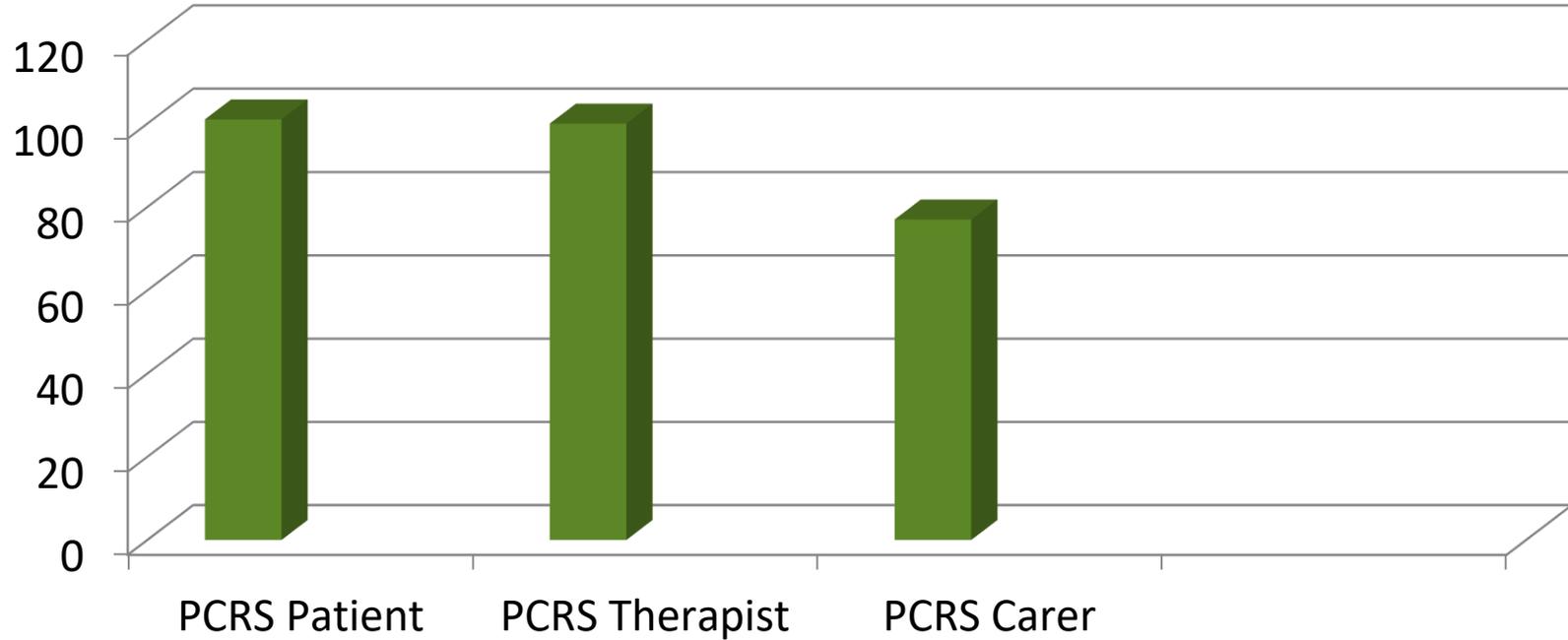
Current results

Gender	Male 53.33% (8) Female 46.67% (7)
Age	79.8 (80)
LOS (rehab)	13.46 days
Type Stroke	14 infarct 1 haemorrhage
Classification	PACI – 53.33% (8), LACI – 33.33% (5), POCI - 13.33% (2)
Side of stroke	Left 46.67% (7) Right 53.33% (8)
DC destination	100% Home, 1 transition to NH at 3 month follow up
Home supports	Home alone 46.67% Home with carer/relative 53.55%
Services on DC	ESD 60% (9) OP 26.67% (4) Nil 13.33% (2)

Cognition and functional changes

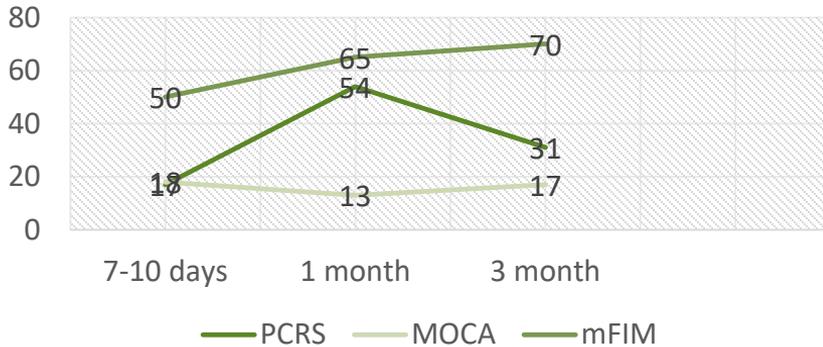


PCRS Scores 0-10 days



Case Examples

Participant 1



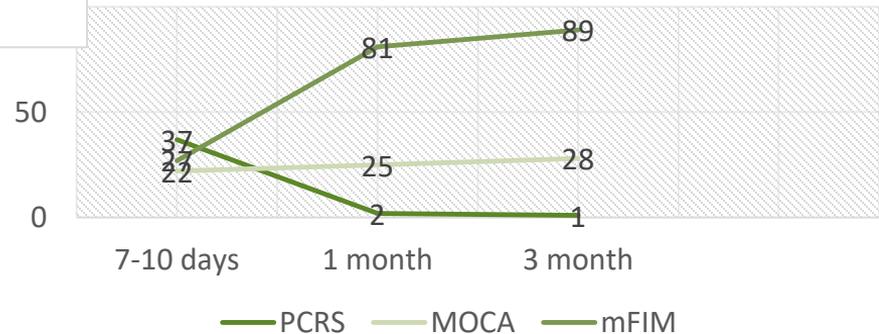
Participant 1

As PCRS score increased, cognition decreased, small improvements in function only

Participant 2

As PCRS score decreased, cognition and function improved.

Participant 2



Clinical Utility PCRS

- Benefits of PCRS
 - quick screen, easy to administer, nominal scale
 - helped with goal setting, communicated to team
- Difficulties of PCRS
 - Language
 - Usability in acute care for some sub sections
 - More depth sub acute care

Discussion

- Data collection ongoing
- Recruitment challenges
- Small sample, pilot study



Qualitative Responses staff

- Positive implementation falls risk strategies early
- Early identification for rehab engagement
- Clinical reasoning for treatment strategies early including education

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Questions?



Please contact

toni.heinemann@health.wa.gov.au