The International Classification of Functioning, Disability & Health (ICF; WHO)

A framework unifying stroke research & practice
ICF

Learning Objectives

• Reflect on how central *participation in a meaningful life* is in your interactions with people with stroke.

• Question the usefulness of the ICF in *connecting your work with others’*

• Describe how *one aspect of your work* is challenged by, or challenges the ICF.
Jill

- Third TIA
- 85 yr old woman
- Previously living independently- keen to get home
- Family Goal: that mum is safe and happy
Jack

- Left side CVA
- Mobile with stick
- Male, 43 yrs, father
- Builder
- Rarotongan
- Goal: To be with his family in time for taro season
Where we have come from

Figure 1: ICIDH MODEL (WHO 1980)

Disease → impairment → Disability → Handicap

(In body structure or function)       (Activity limitation)       (Participation restriction)
ICF

A Case Example

Health condition
(disorder or disease)

Stroke

Body Functions & Structure

Thinking processes, Muscle tone

Toileting, making tea

Keeping a household, Learning to paint, Being a spouse

Family support
Shoe horn
Flexible employer
Rehabilitation services

Environmental Factors

Personal Factors

Contextual factors

Age, gender, general health
Distinguishing ambiguous concepts

Health condition
(disorder or disease)

Body Functions & Structure

Activity

Participation

capacity ........ performance

Contextual factors

Environmental Factors

Personal Factors

0 No problem
1 Mild problem
2 Moderate problem
3 Severe problem
4 Complete problem
8 Not specified
9 Not applicable

+0 No facilitator
+1 Mild facilitator
+2 Moderate facilitator
+3 Substantial facilitator
+4 Complete facilitator
+8 Facilitator, not specified
+9 Not applicable
### Table V. International Classification of Functioning, Disability and Health (ICF) – categories included in the Brief ICF Core Set for stroke and percentage of experts willing to include the named category in the Brief ICF Core Set. 50% represent a preliminary cut-off. >50% is bold

<table>
<thead>
<tr>
<th>ICF component</th>
<th>%</th>
<th>ICF code</th>
<th>ICF category title</th>
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<td>b110</td>
<td>Consciousness functions</td>
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<td>Orientation functions</td>
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<td>Muscle power functions</td>
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<td>Memory functions</td>
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<td><strong>Body structures</strong></td>
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<td>Structure of upper extremity</td>
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<td>Washing oneself</td>
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<td>Communicating with – receiving – spoken messages</td>
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<td>e580</td>
<td>Health services, systems and policies</td>
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</table>
ICF: Clinical Use

Werner et al (2002)
ICF: Clinical Use Example

Disorder/Disease
- Reactive arthritis
- Chronic multifactorial pain syndrome

Body Structures/Functions
- Often tired
- Pain in the neck, hands, feet
- Moderate impairment of joints
- Hands, fingers (s73012.2)
- Ankle, feet (s75021.2)
- Regulation of emotion (b1521.3)
  (anxiety and feelings of depression)
- General physical endurance (b4550.2)
- Hypertonia of neck (b735.3)
- Muscle power functions: arm/feet (b7304.2)

Activities
- Housekeeping activities that involve lifting or carrying by hand (e.g., vacuuming, ironing, shopping)
- Writing
- Walking long distances

Participation
- Partial incapacity for work (60%) with need to avoid sick leave
- Anxious about losing job
- Missing social contacts previously found in leisure clubs
- Stopped accompanying husband in walking

Personal Factors
- Coping strategies (-2)
- Social background (-1)
- German language (+3)
- Personality (+1)

Contextual Factors

Environmental Factors
- Former medication (painkillers) (e1101.2)
Rethinking Rehabilitation

Research questions informed by the ICF
How effective is constraint induced movement therapy in improving participation for people with stroke?


**Figure 6.** Stroke Impact Scale (SIS) – Participation (0-40 scores): constraint-induced movement therapy treatment vs. control treatment. SD, standard deviation; Total, number of patients; Weight, percentages refer to the value of the study in the meta-analysis according to the Total; Random, random effect meta-analysis (estimated effects are not identical in different studies but it follows some distribution); 95% CI, 95% confidence interval.

N=49 (4 RCT’s) Systematic review

**RESULTS**

Using the Participation components of the Stroke Impact Scale participation improved more for control groups than CIMT group despite clear improvements in motor control.
What facilitates bus use for older adults compared to younger adults with disabilities?


**N=231 older adults; nominal group technique**

**RESULTS**
- driver friendliness the principle facilitator for older adults bus use, above bus availability, price and physical access

**SO WHAT**
- Bus driver education (including values-based reflection) may be a better investment of public funding than technology
Does OP coaching improve participation, self efficacy and cognition for people with stroke?


- N=21; randomised controlled trial
- Comparison: usual care

RESULTS
- OP Coaching group had greater improvement in:
  - performance of personal goals
  - cognition
- No difference in self-efficacy and emotional health

SO WHAT?
- An intervention that targets meaning focused goals & engagement (rather than stroke specific impairments) is more effective than usual care
Start your Postgraduate study in Rehabilitation 2017
Specialists in Distance-Taught Postgraduate Courses in Inter-professional Rehabilitation

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