

Mechanisms that matter in stroke rehabilitation

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& the REVIHR study steering group



The University of
Nottingham

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A partnership between
Nottinghamshire Healthcare NHS Foundation Trust
and the Universities of Nottingham and Leicester



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Overview

- Implementing evidence based stroke rehabilitation in a hospital setting
- Investigation of mechanisms underpinning delivery of stroke rehabilitation
- Independence in daily living, Intensity of therapy
- Realist Evaluation
- Collaborative partnership synergy
- Approaches to facilitating improvements

Background

- Previous research has shown that provision of in-hospital rehabilitation in the UK was much less than in Europe and not always evidence based
- The REVIHR study aims to facilitate improvements in the delivery of evidence-based stroke rehabilitation
- Three year study in four stroke rehabilitation units (East Midlands)
- ReAcT study Dr David Clarke (North East, North West, Yorkshire)

De Wit et al. Stroke 2005; 36:1977-1983

Aims of the REVIHR Study

- To explore how stroke patients' time is spent in the stroke rehabilitation unit
- To capture amounts of time patients spend practicing Activities of Daily Living (ADLs)
- To explore how members of staff divide their time
- **To capture the mechanisms that drive the delivery of evidence based stroke rehabilitation**

Methods

- 40 semi-structured interviews across 4 stroke units
- 10 from each site purposive sampling from MDT
- Interviews recorded, transcribed and entered into Nvivo
- Interview schedule topics:
 - MDT communication
 - Delivering rehabilitation/ MDT working
 - Evidence based practice
 - Leadership
 - Staff training

**Collaboration for Leadership in
Applied Health Research and Care
East Midlands**

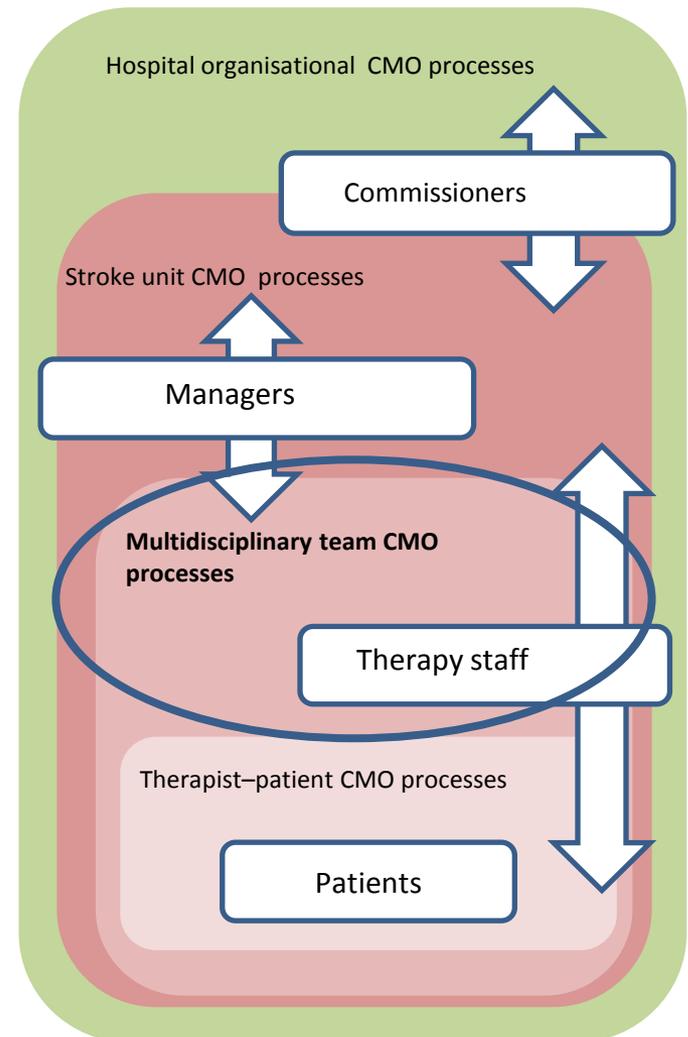


***National Institute for
Health Research***

	Site 1	Site 2	Site 3	Site 4	totals
Physiotherapists	3	3	2	2	10
Occupational therapists	2	1	1	1	5
Speech & Language T	0	1	0	1	2
Rehab/therapy assistants	0	0	1	1	2
Nurses	3	3	3	4	13
Stroke consultant	0	0	1	1	2
Health Care Assistants	2	0	0	0	2
Commissioner groups	1	1	1	0	3
Stroke Association	0	1	0	0	1
Totals	11	9	9	10	40

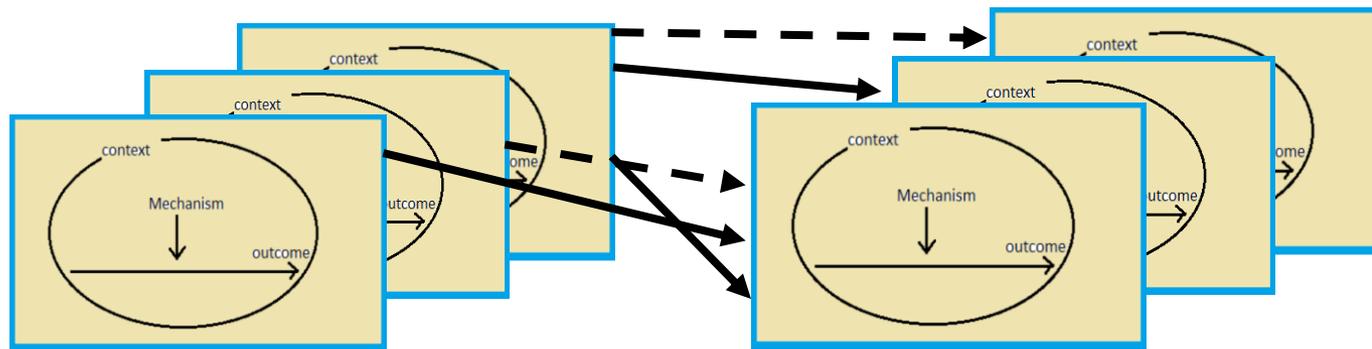
Realist Evaluation

- Realist evaluation approach recognises the complexity of open social systems in health interventions
- CMO patterns associated with delivery of stroke rehabilitation in stroke rehabilitation wards
- **C= context:** conditions in which interventions are introduced
- **M= mechanism:** How a programme brings about effects through reasoning/ resources
- **O= outcome:** Intended or unintended consequences of interventions
- Under certain context conditions mechanisms (processes) will be triggered producing outcomes



Complexity

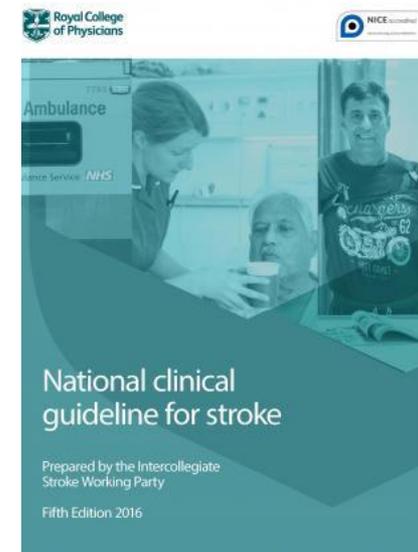
- CMO configurations are key analytical device in realist evaluation
- Theory building to explore how interventions operate
- Multiple mechanisms in operation at any given time

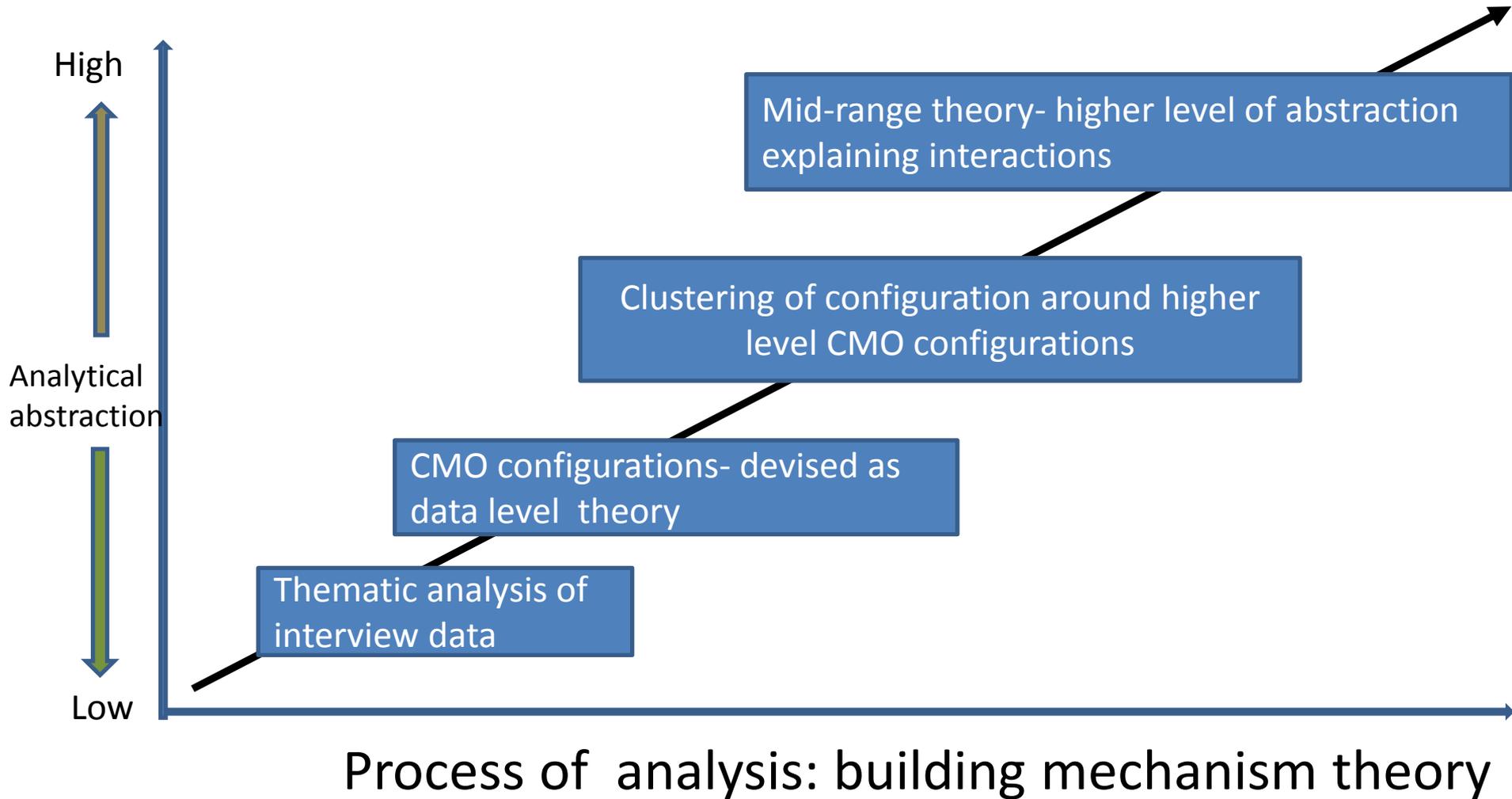


Programme theory

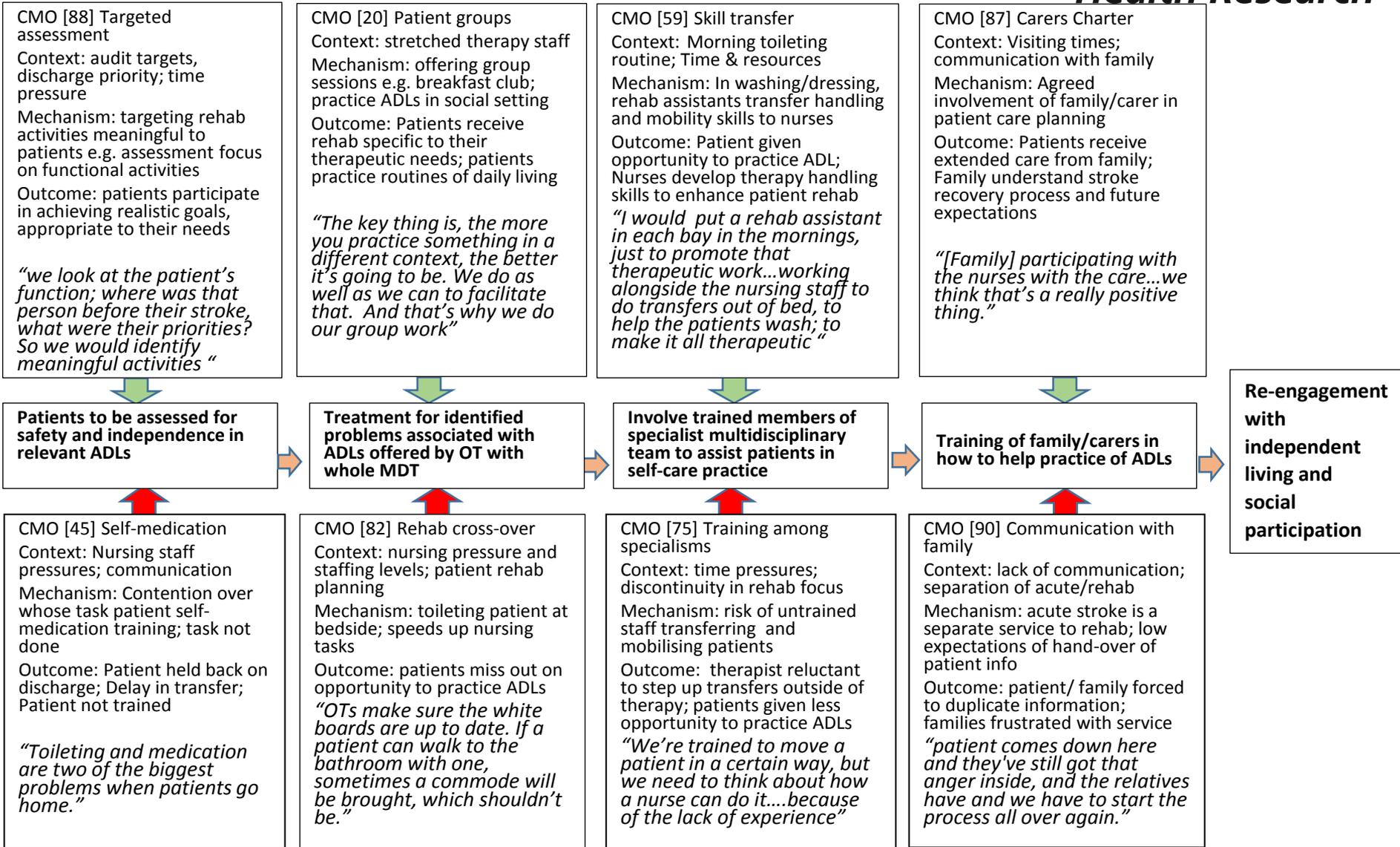
- Refine and add to the programme theory (what works, for whom, in what circumstances?)
- **Appropriately delivered, high intensity, specialist rehabilitation early post stroke leads to better functional outcomes for stroke patients**
- Co-ordinated multidisciplinary rehabilitation
- Staff with a specialist interest in stroke or rehabilitation
- Regular programmes of education and training
- Team meetings at least weekly to plan care
- Effective leadership

- **Independence in daily living & Intensity of therapy**
- Goal setting & Resources





Independence in daily living



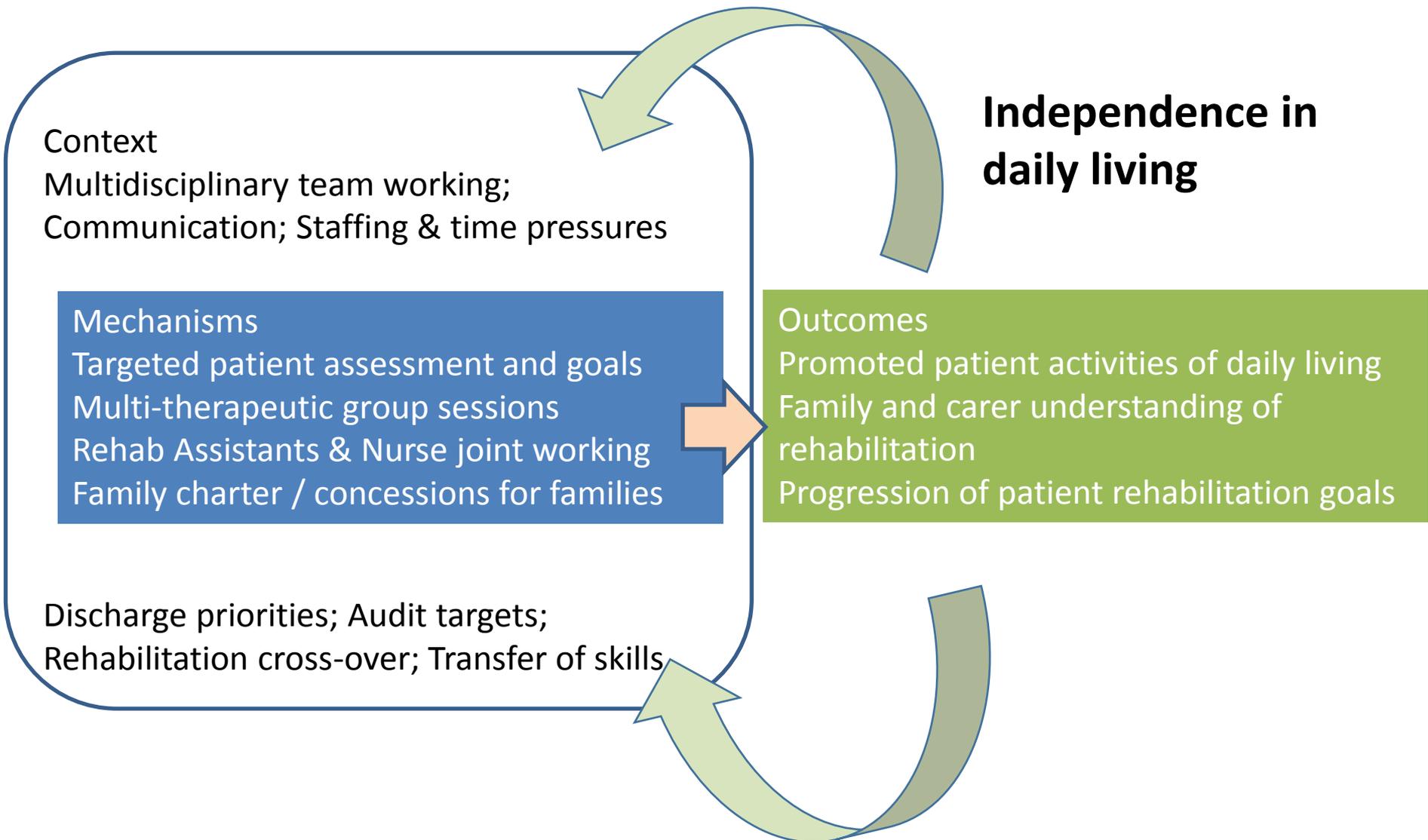
Context
Multidisciplinary team working;
Communication; Staffing & time pressures

Mechanisms
Targeted patient assessment and goals
Multi-therapeutic group sessions
Rehab Assistants & Nurse joint working
Family charter / concessions for families

Discharge priorities; Audit targets;
Rehabilitation cross-over; Transfer of skills

**Independence in
daily living**

Outcomes
Promoted patient activities of daily living
Family and carer understanding of
rehabilitation
Progression of patient rehabilitation goals



CMO [81] Joint sessions

Context: MDT working; patient fatigue/ tolerance; pressure of staff/time; audit requirements

Mechanism: Planning joint sessions allows input from both PT and OTs

Outcome: Patients receive tolerable levels of therapy from disciplines; strengthened interdisciplinary ethos

“If they have clear issues with fatigue we will always try and double up and see physio and OT at the same time, it’s not fair to ask the patient to do something twice if they’ve got real problems with energy conservation”



Patients to receive 45 mins of each therapy per day



Patients receive continuous and appropriate levels of therapy



CMO [85] Lack of therapy coordination; patient fatigue.

Context: MDT working; patients rehab tolerance; timetabling therapy

Mechanism: lack of coordination; patient rehab delivered ad-hoc by separate therapy staff

Outcome: patient therapy tolerance is peaked; lose out on further therapy inputs

“ some of the really acute [patients] who are still poorly, they just can't tolerate that, especially when you consider it's not just ourselves trying to spend forty-five minutes with them. ”

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Health Research*

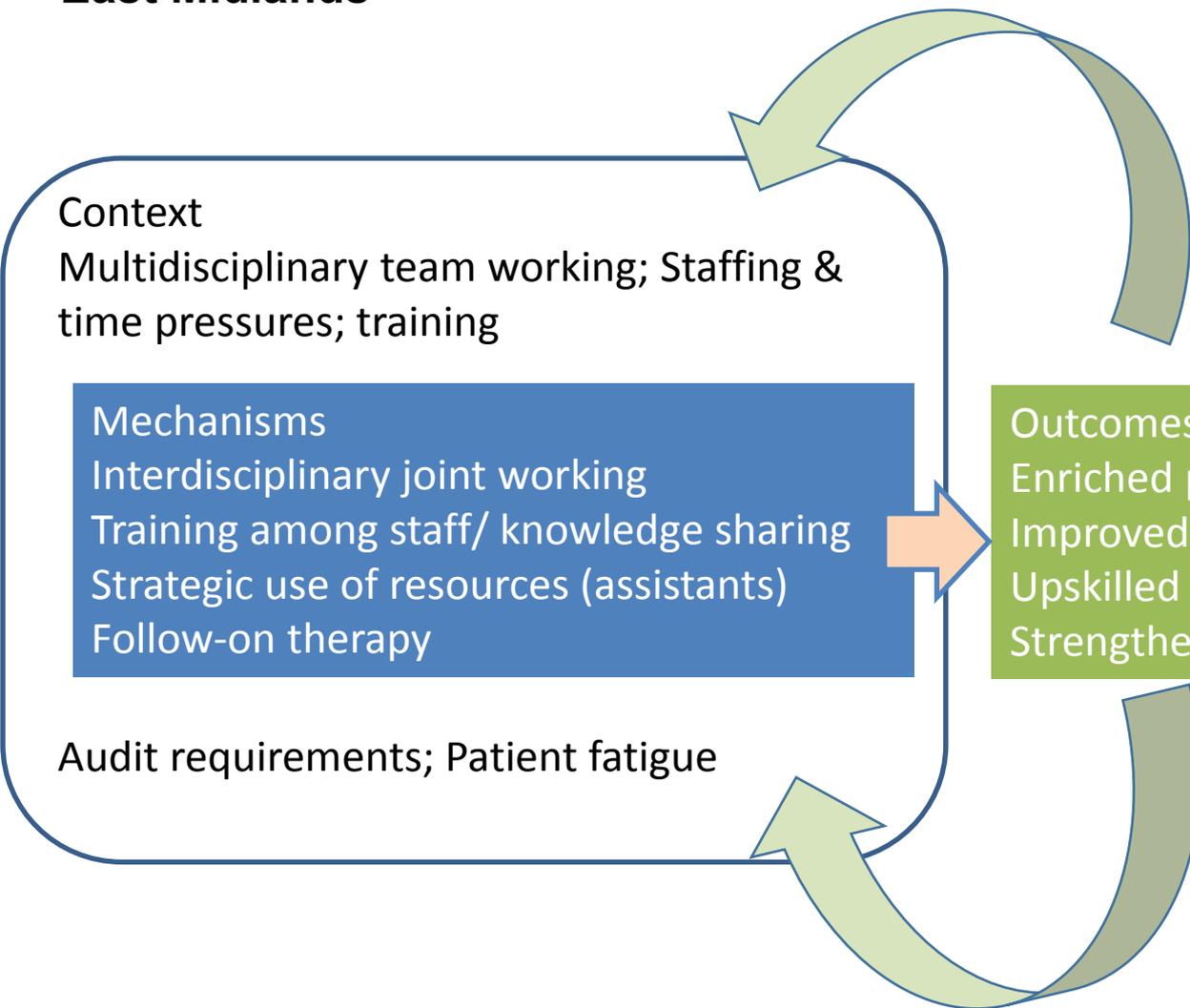
Intensity of therapy

Context
Multidisciplinary team working; Staffing &
time pressures; training

Mechanisms
Interdisciplinary joint working
Training among staff/ knowledge sharing
Strategic use of resources (assistants)
Follow-on therapy

Outcomes
Enriched patient rehabilitation for ADL
Improved communication (nurse/therapy)
Upskilled nursing staff
Strengthened rehabilitation ethos

Audit requirements; Patient fatigue

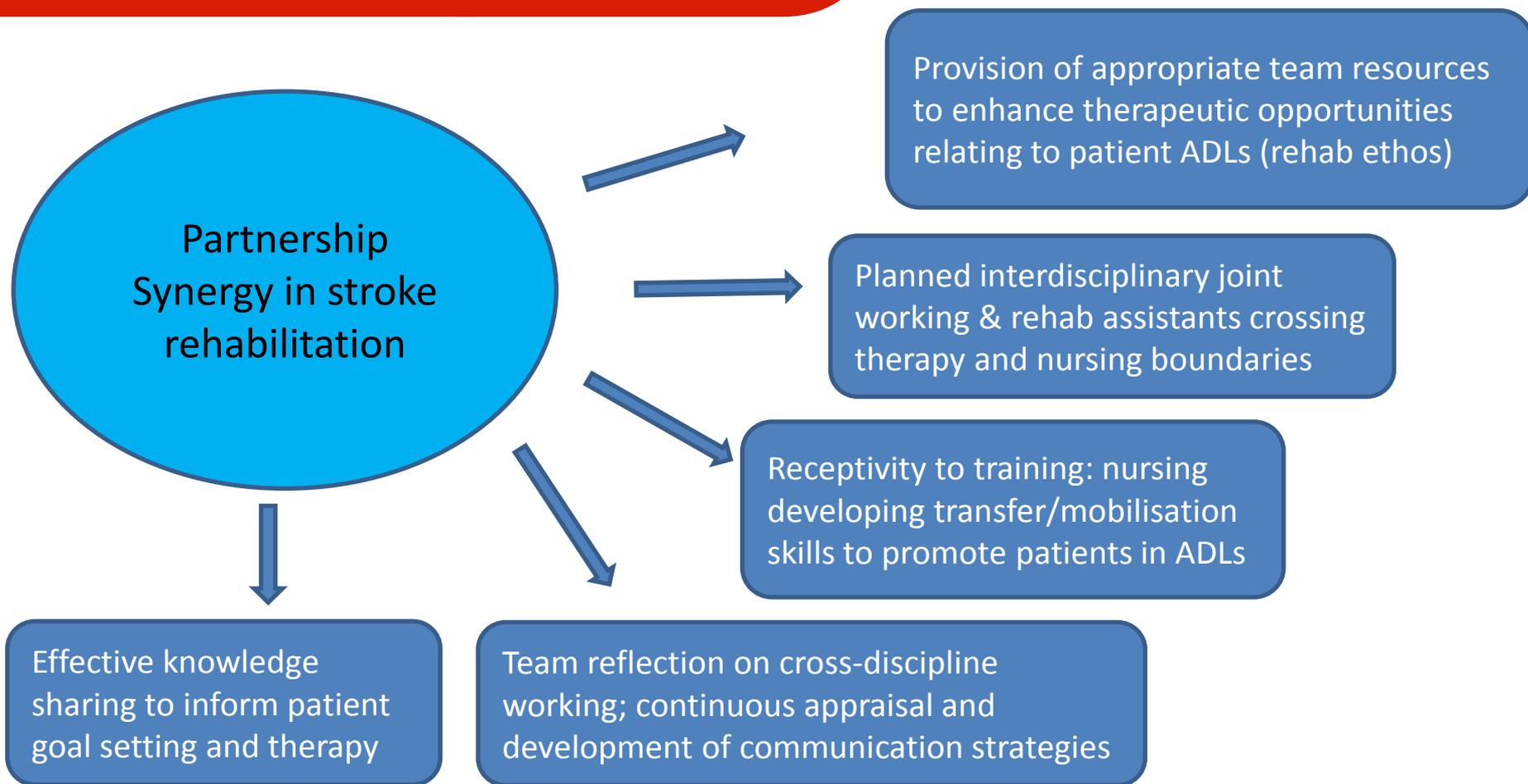


Collaborative partnership synergy

- **Collaboration:** parties who see different aspects of a problem can explore constructively their differences and search for solutions that go beyond their limited vision of what is possible
- **Partnership actions:** Alliance, reduce duplication, critical mass
- **Synergy:** combining individual perspectives, resources, skills of the partners, the group is greater than the sum of its parts

Lasker et al 2001. Partnership Synergy. The Millbank Quarterly 2001; 79(2):179-205.

Mechanisms that matter

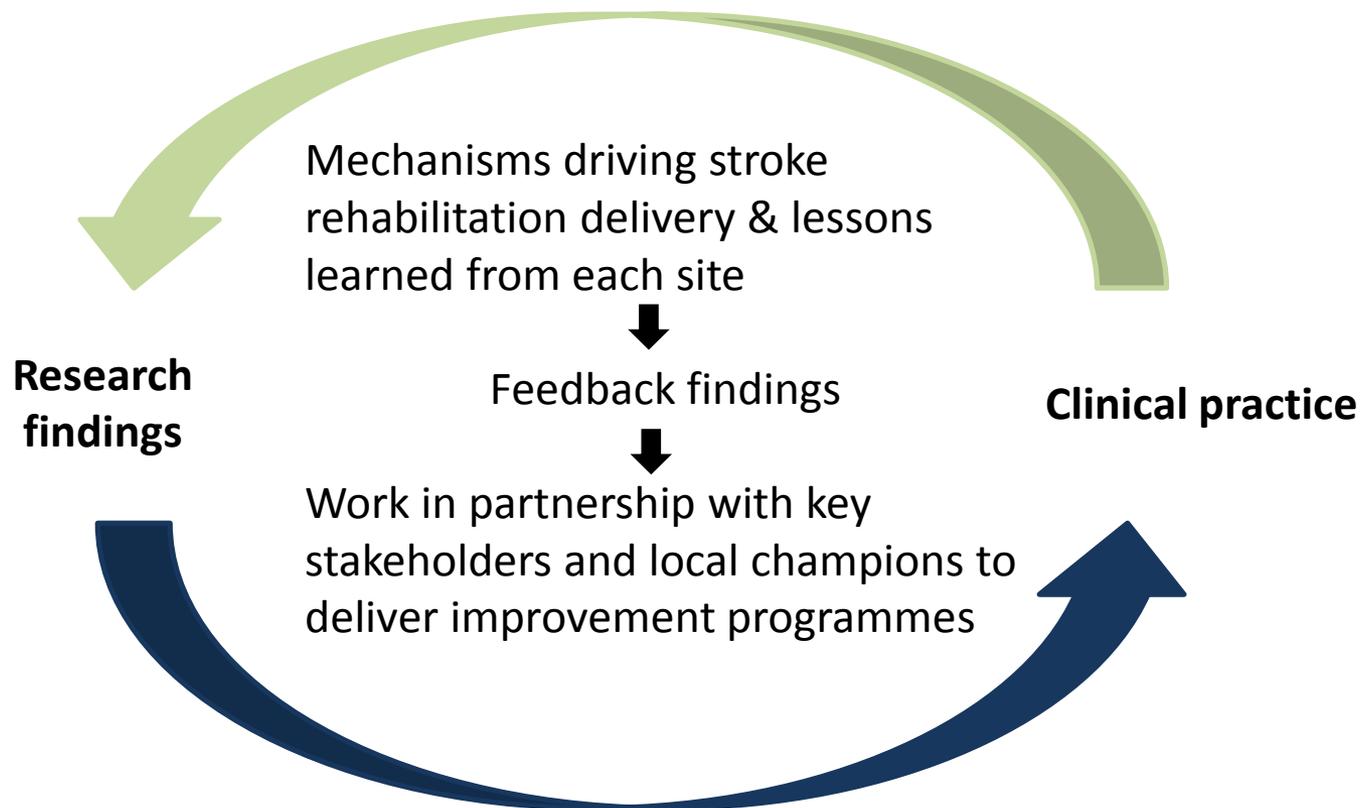


Collaborative partnership synergy

- Building synergy can be time consuming and difficult
- Opportunity to think about working patterns creatively and practically
- Encouragement of different team member perspectives and skills to address problems
- Build trust, respect and reciprocity to enhance partnership working
- Boundary-spanning leadership, coordination and management

Lasker et al 2001. Partnership Synergy. The Millbank Quarterly 2001; 79(2):179-205.

Facilitating improvements





Whatever comes out of these gates, we've got a better chance of survival if we work together. Do you understand? If we stay together, we survive.

~ Maximus (Gladiator)
www.gotknowhow.com

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Thank you for listening

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