

Exercise considerations and precautions during cancer treatment

Considerations

- Have vital signs monitored regularly
- Exercise with a partner
- Avoid public facilities with increased risk of viral and/or bacterial infection (swimming)
- Stop exercise if sudden:
 - dizziness, blurred vision or fainting
 - nausea, vomiting
 - unusual shortness of breath
 - palpitations, chest pain
 - Leg/calf, bone, or unusual pain

Precautions

- Anaemia (“low”) – scale back or avoid
- Neutropenia ($>100^{\circ}\text{F} / 38^{\circ}\text{C}$) - avoid
- Thrombocytopenia (“low”) - avoid contact sports or activities with high risk of injury
- Catheter / line – avoid exposure to infection or exercises that may disrupt or dislodge

WHO Collaborating Centre
for Palliative Care, Policy and
Rehabilitation



Interventions for cachectic patients: a rehabilitation perspective

Matthew Maddocks MSCP PhD
Specialist Physiotherapist
Lecturer in Health Services Research



Outline

A physiotherapist's view on:

- symptoms as a threat to function
- disability and dependence
- goal setting as a rehabilitation intervention



What matters to patients with advanced disease?

Adequate symptom control +

- A sense of control
- Relieving burden
- Strengthening relationships with loved ones
- Usual routines
- Continuing with important roles
- No longer feeling 'who I once was'
- Being able to perform daily activities
- Maintaining dignity
- Maintaining a sense of humour
- Sharing time with friends and family
- Not being a burden

Quality End-of-Life Care Patients' Perspectives

Original Article

The Landscape of Distress in the Terminally Ill

Harvey Max Chochinov, MD, PhD, Thomas Hassard, PhD, Susan McClement, PhD,
Thomas Hack, PhD, CPsych, Linda J. Kristjanson, PhD, Mike Harlos, MD,

Factors Considered Important at the End of Life by Patients, Family, Physicians, and Other Care Providers

Karen E. Steinhauser, PhD

Context A clear understanding of what patients, families, and health care practi-

Symptom control is not an end in itself...

Singer et al. JAMA 1999; Chochinov et al JPSM 2009; Steinhause et al. JAMA 2000.

What is symptom control?

Symptoms are complex and multidimensional:

- Sensory-perceptive *or* how intense or bad is your symptom?
- Affective distress *or* how distressing is your symptom?
- Symptom impact and burden *or* how does your symptom affect your function?

If a symptom is chronic and/or difficult to treat what is the best domain to target?

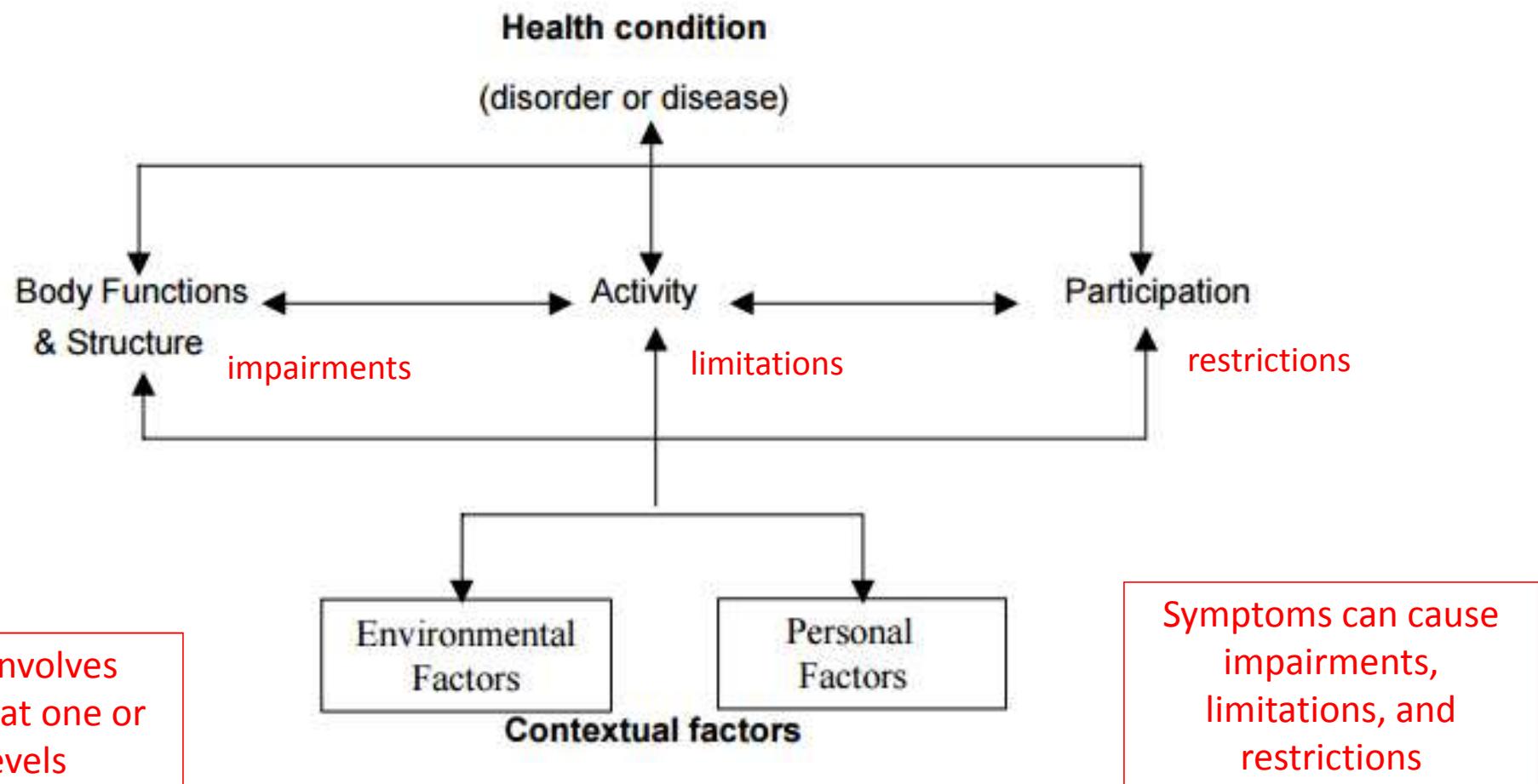
A rehabilitation approach often focuses on the symptom impact or burden:

- arguably more treatable
- directly addresses patient priorities
- but often hard to measure

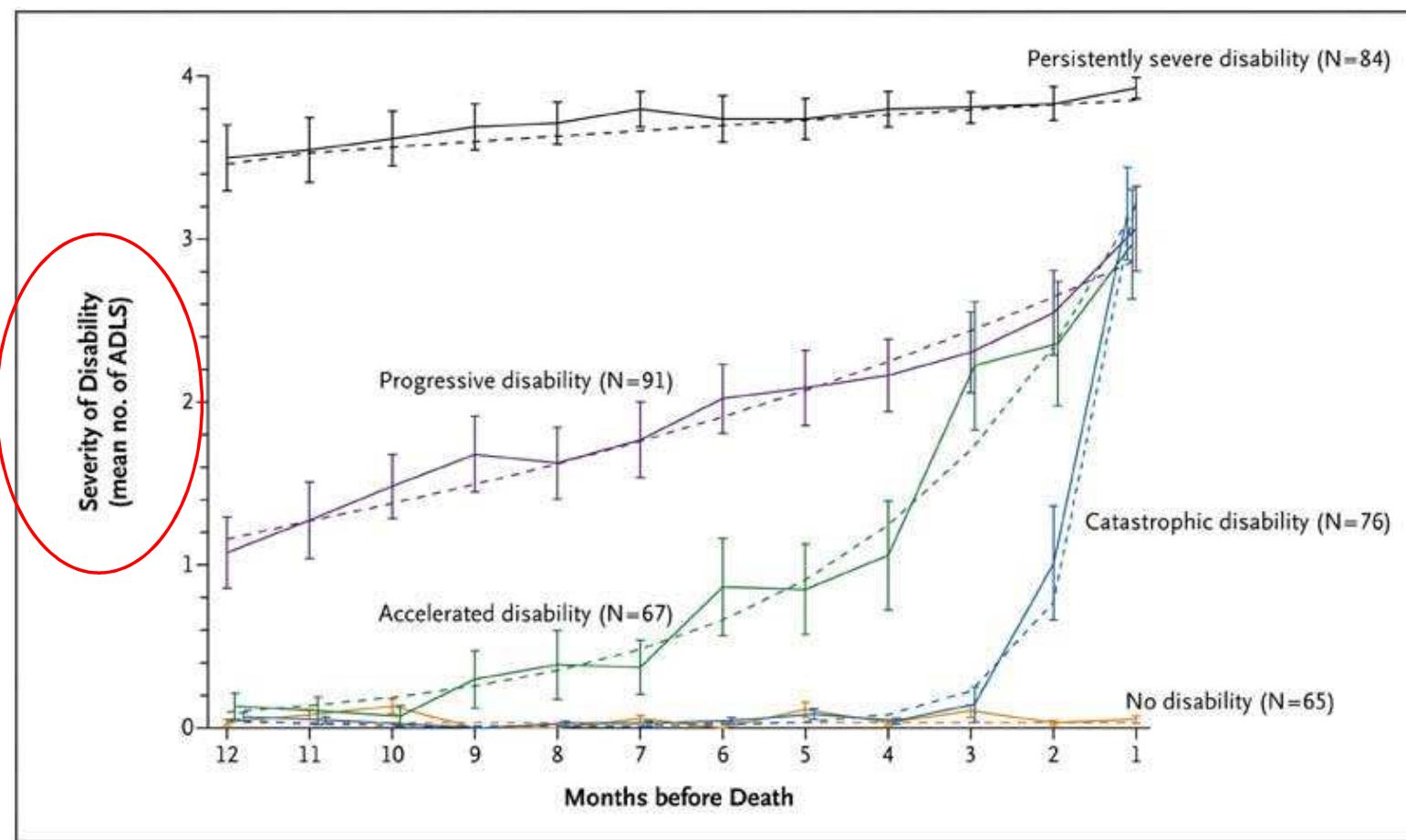


Physical Exercise for Cancer Patients with Advanced Disease:
A Randomized Controlled Trial

Symptoms and Functioning (WHO-ICF)



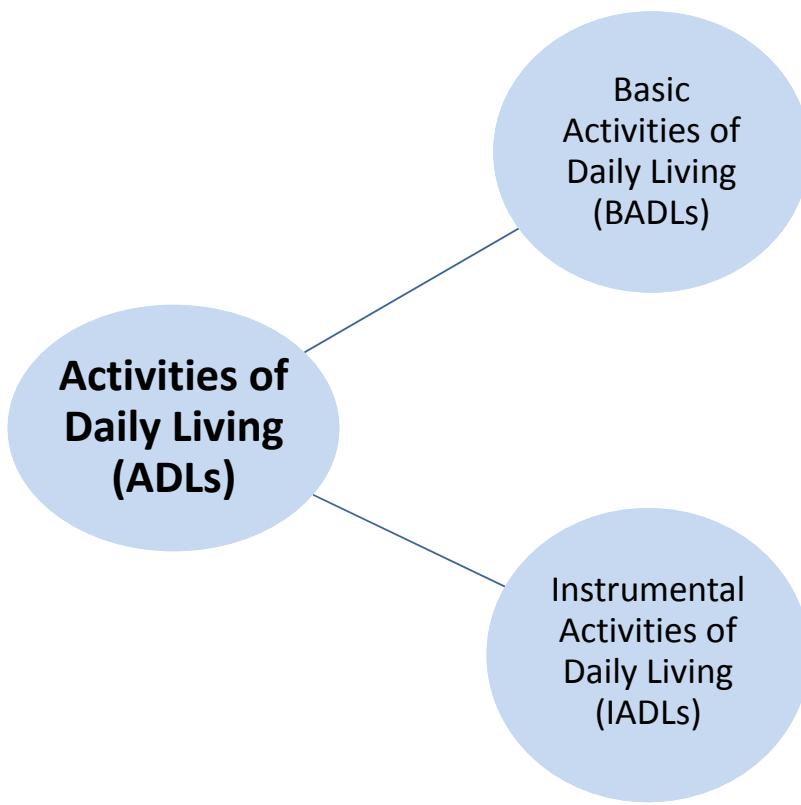
Trajectories of functional decline



Gill et al. NEJM 2010;362:1173-80

Activities of Daily Living

Essential activities that an individual needs to perform to live independently



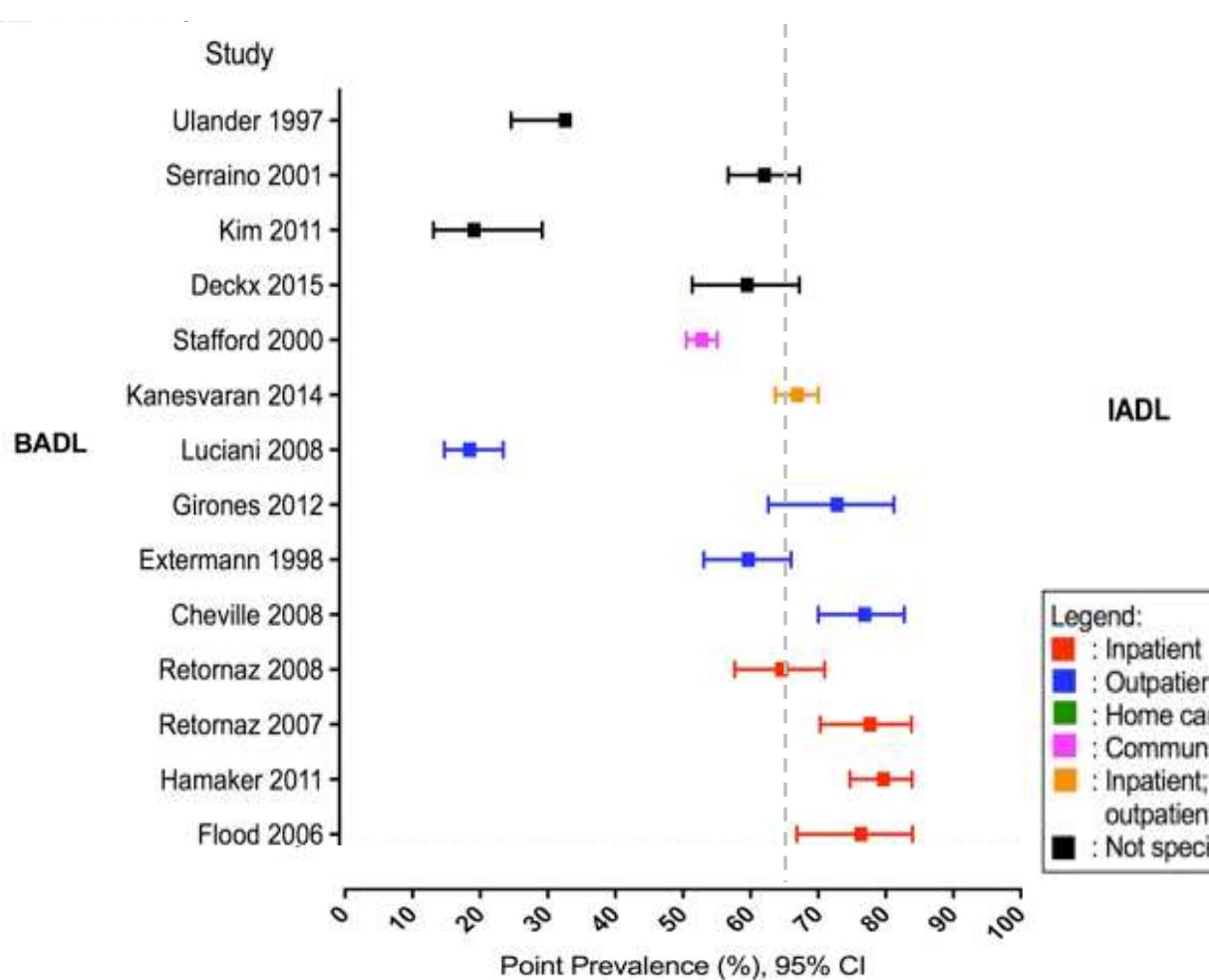
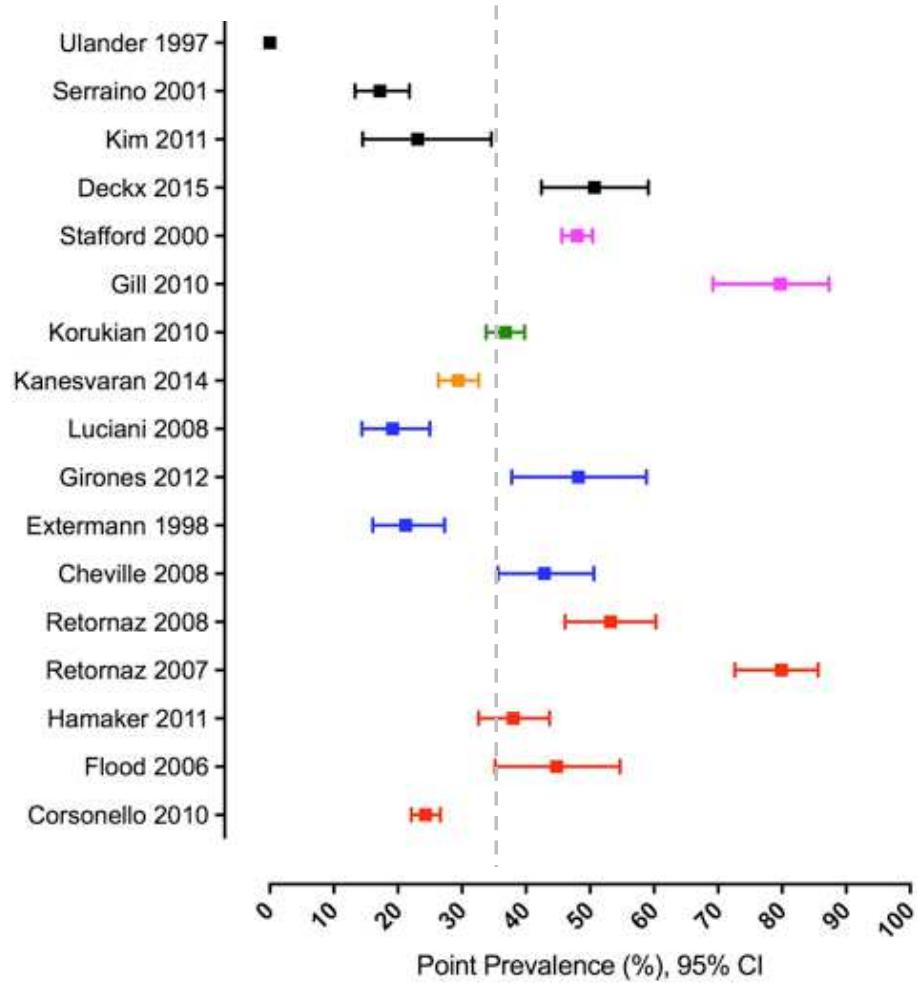
Feeding/eating
Dressing
Bathing/showering
Toileting
Transfers e.g. bed/chair
Ambulation



Preparing food
Housekeeping
Shopping
Doing laundry
Using transportation/drive
Handling medications
Handling finances



ADL disability in cancer



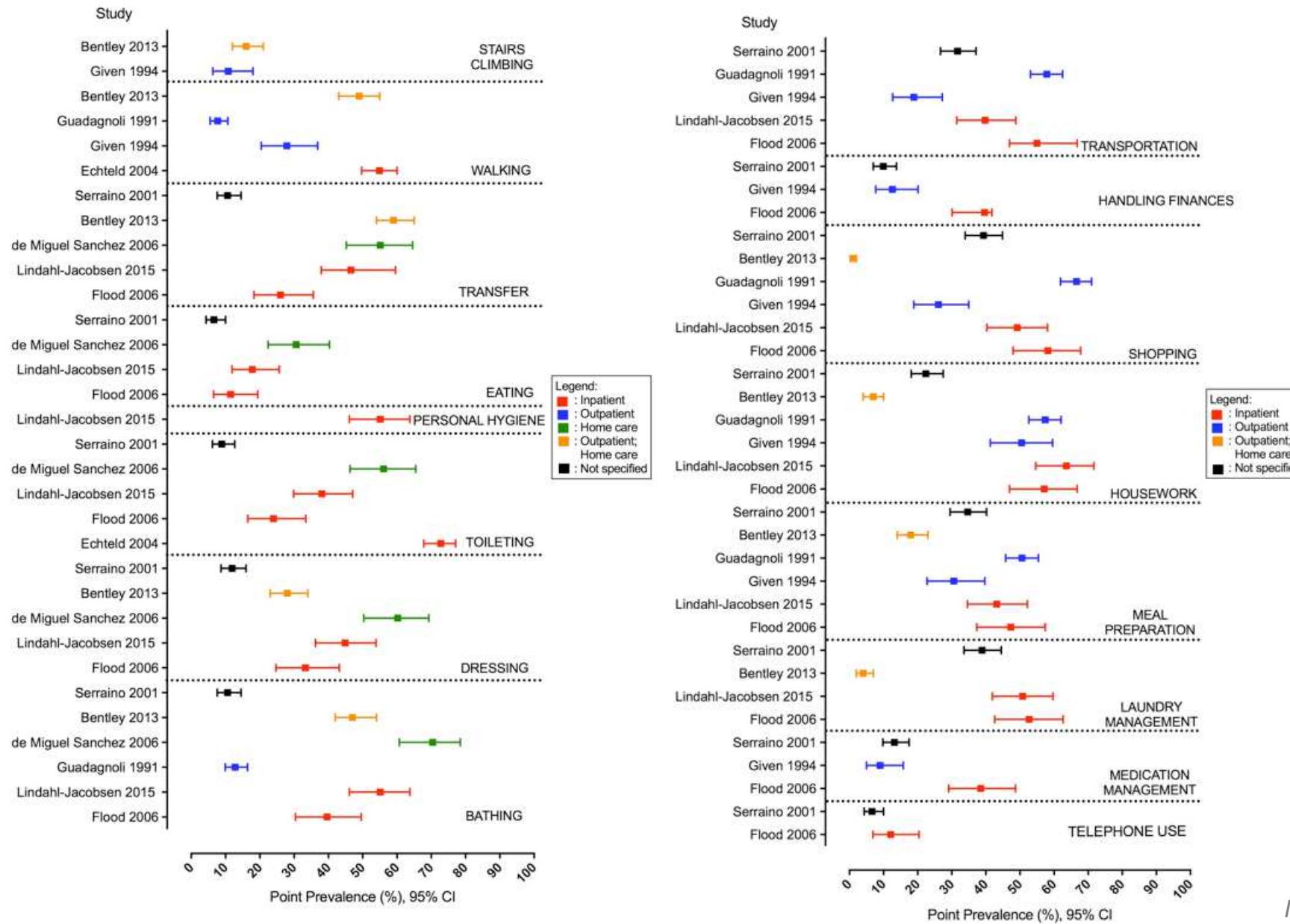
Legend:

- : Inpatient
- : Outpatient
- : Home care
- : Community
- : Inpatient; outpatient
- : Not specified

Maddocks et al. Unpublished

Specific ADL disability in cancer

Can be used to help direct rehabilitation screening, referral and input



Goal setting

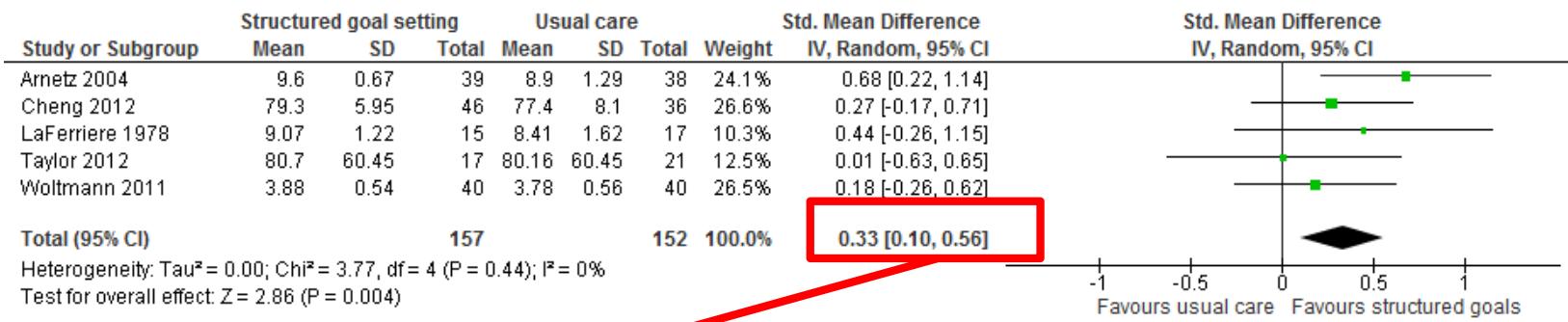
- A core part of rehabilitation practice, which can:
- help understand what your patients want to achieve *
- direct practice in a manner that values patient priorities
- support interdisciplinary working.
- Tell me what matters to you...



* or strive towards
Playford, 2000, 2009, Levack et al. 2011

Effectiveness of goal setting

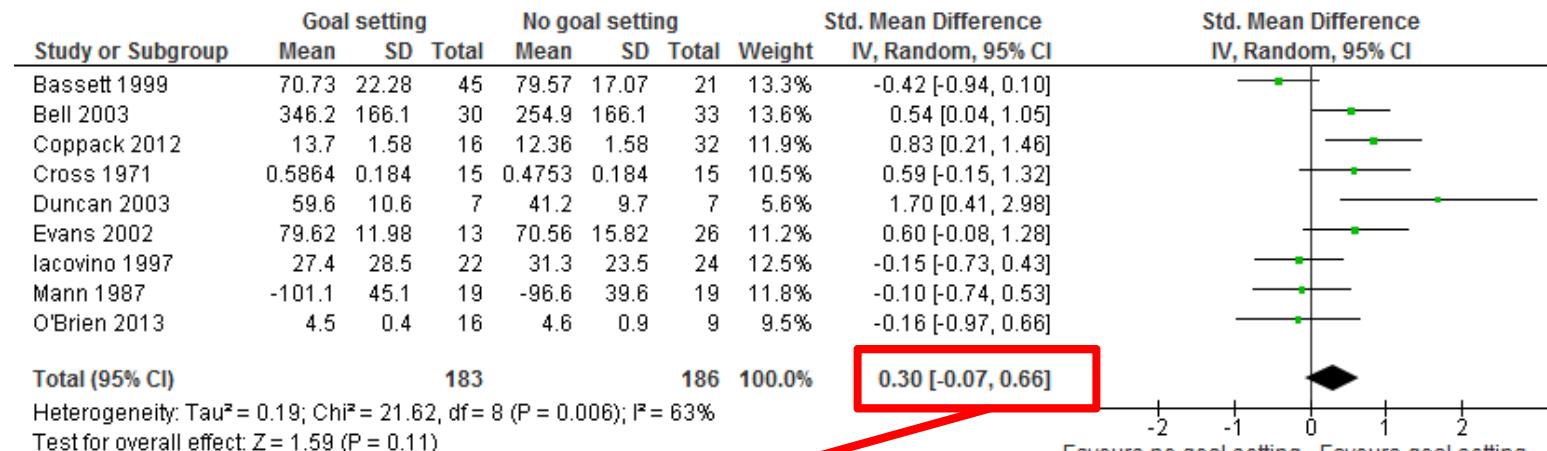
- Patient satisfaction



SMD 0.33 (95% CI 0.10 to 0.56)

Effectiveness of goal setting

- Motivation, adherence, and engagement

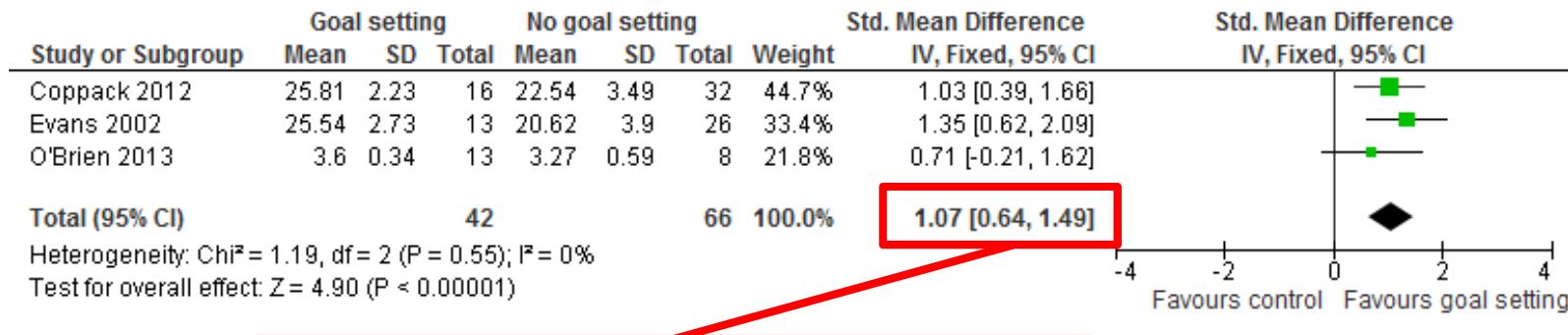


SMD 0.30 (95% CI -0.07 to 0.66)

Levack et al. Cochrane Systematic Review 2015;CD009727

Effectiveness of goal setting

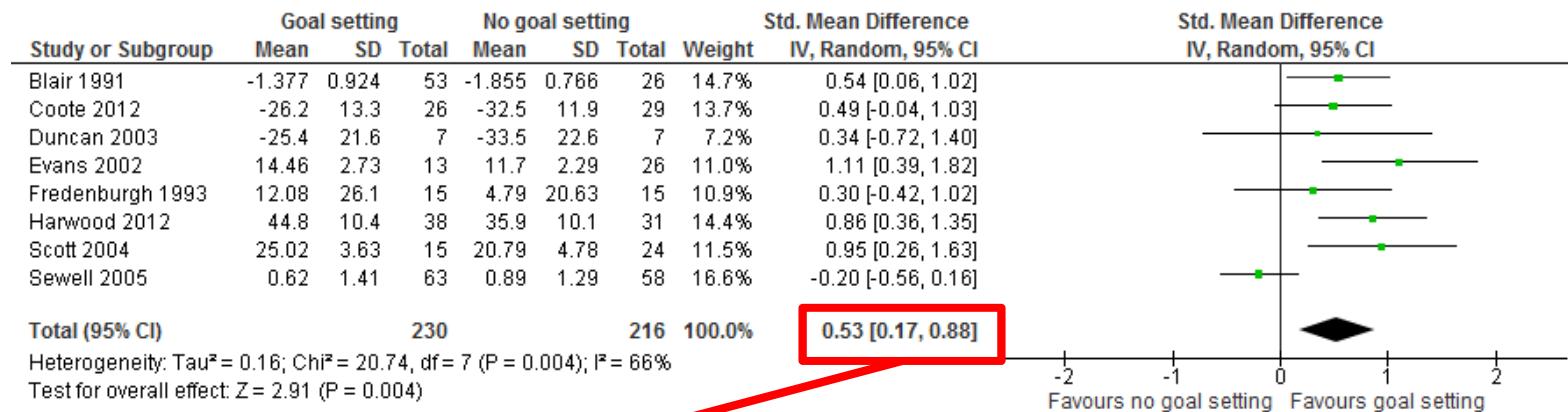
- Self-efficacy (belief in one's ability)



SMD 1.07 (95% CI 0.64 to 1.49)

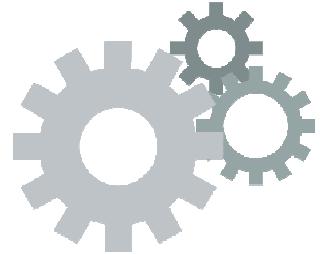
Effectiveness of goal setting

- Health-related quality of life and emotional well being



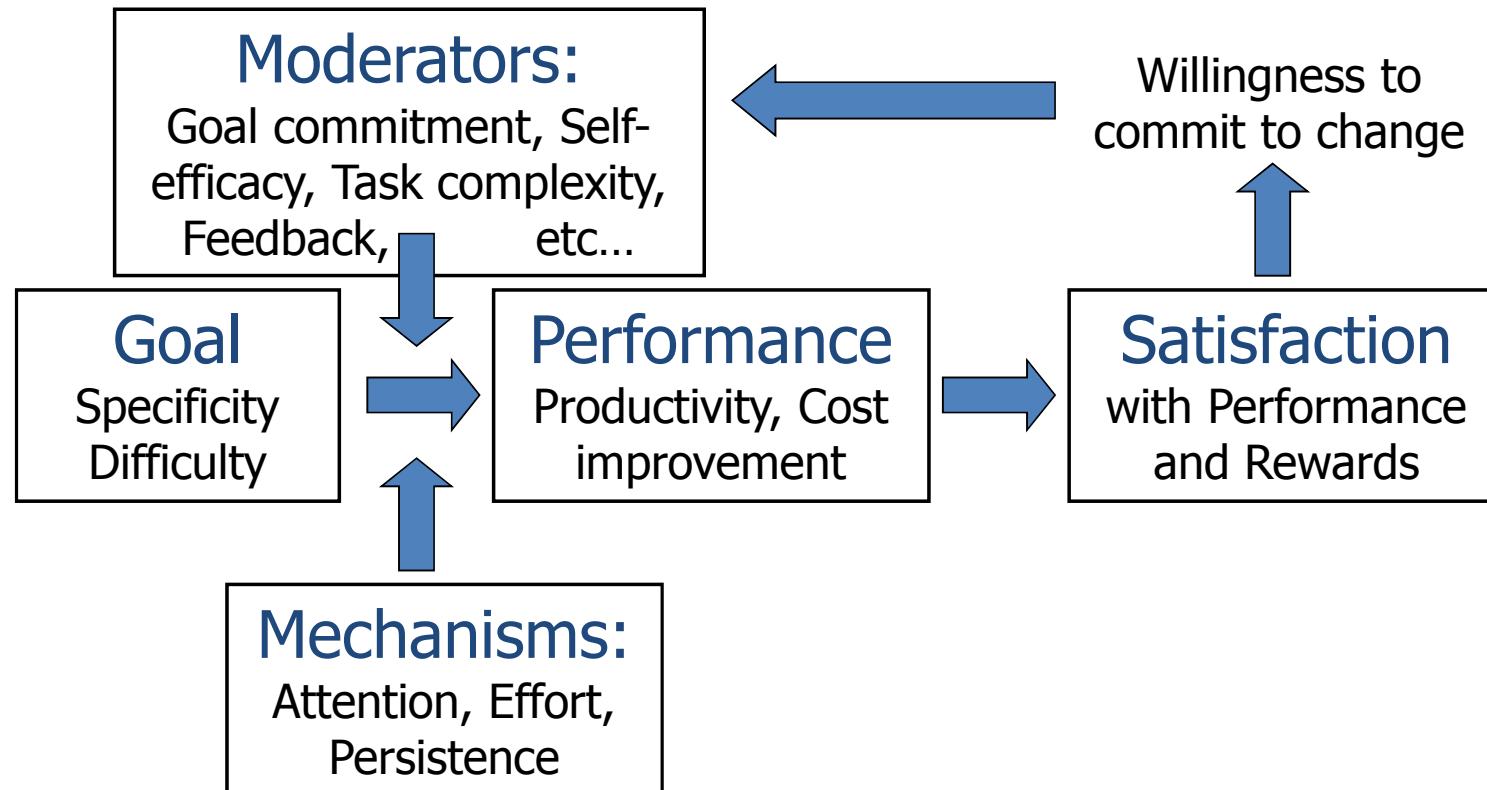
SMD 0.53 (95 % CI 0.17 to 0.88)

How might goal setting work?



- Goal setting **creates drive** and influences behaviour
- Goals do not have to be achievable or even realistic to have this effect
- Goals do not have to be set by the patient to have this effect
- The influence of goals on drive is moderated a number of variables
- Not all goals have this effect

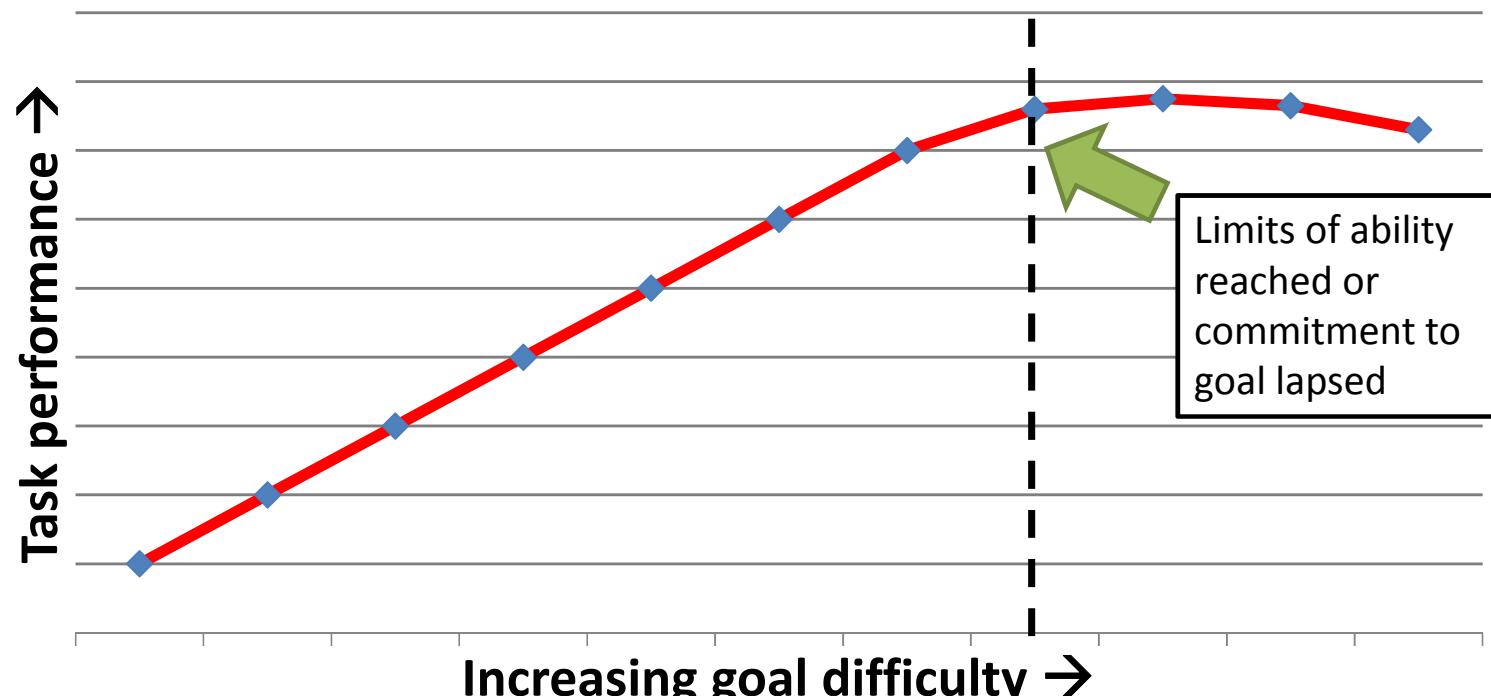
Locke and Latham's GST



(Locke and Latham, 2002)

Goals create drive

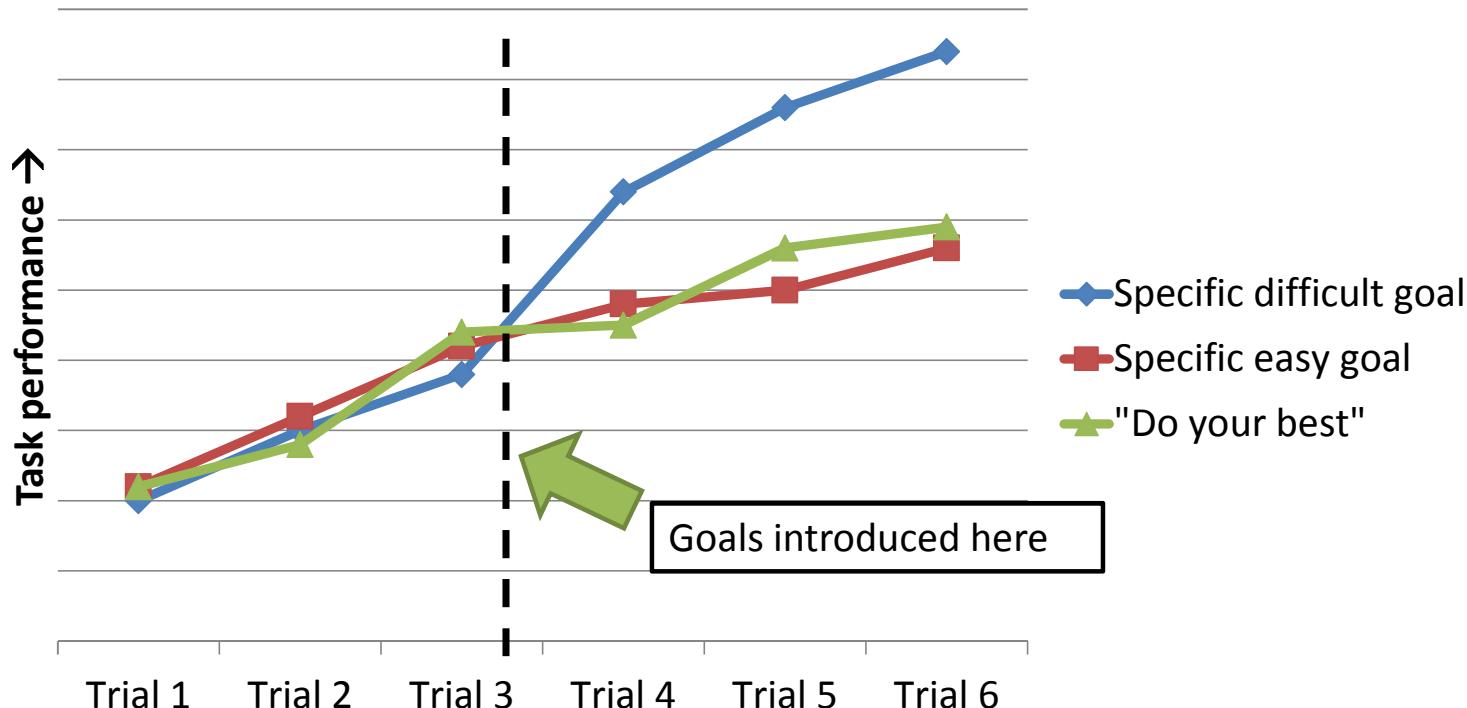
Relationship between goal difficulty & task performance



(Locke & Latham, 1990)

Goals create drive

Comparison of performance for different goal types



Effect size for high vs low
goal difficulty:
SMD 0.52 to 0.82

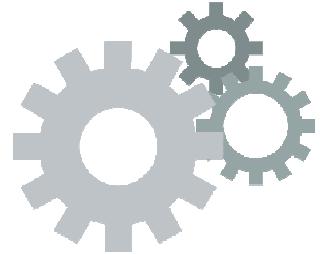
Effect size for specific
difficult goals vs 'do your
best' instructions:
SMD 0.42 to 0.82

(Locke & Latham, 1990)

Practical implications

- When setting goals be specific and challenging
- Encourage patients to believe they can achieve their goals
- Ask and inform patients about their progress toward the goals, encouraging them to maintain their effort
- Evaluate outcome on the basis of actual achievements rather than on goal attainment

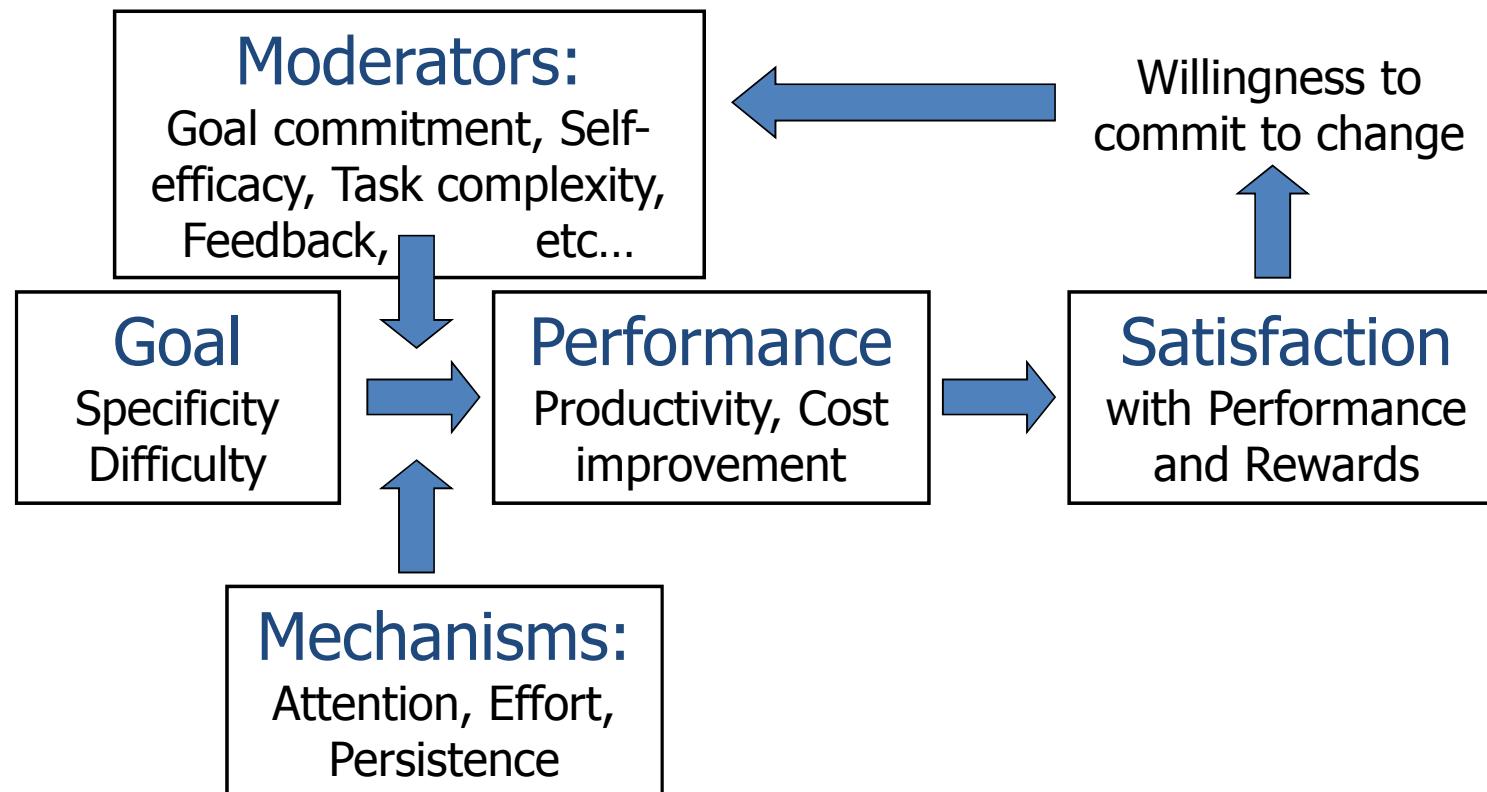
How might goal setting work?



- Goal setting creates drive and **influences behaviour**
- Self-efficacy directly influences behaviour when pursuing goals
- Self-efficacy can be modified by variables:
 - Mastery experiences
 - Social persuasion
 - Physiological and emotional states

(Bandura, 1997)

Locke and Latham's GST



(Locke and Latham, 2002)

Discussing patient goals is worthwhile

- Goal setting can be a mechanism to increase self-efficacy
→ increased self management
- More explicit awareness of a patient's goals and how they work towards them → increased success in directing behaviour
- More explicit awareness of the effect of environmental factors on choice, motivation and persistence towards goals
→ increased success in achieving goals

(Boekaerts et al., 2005)
(Jones and Riazi, 2011)

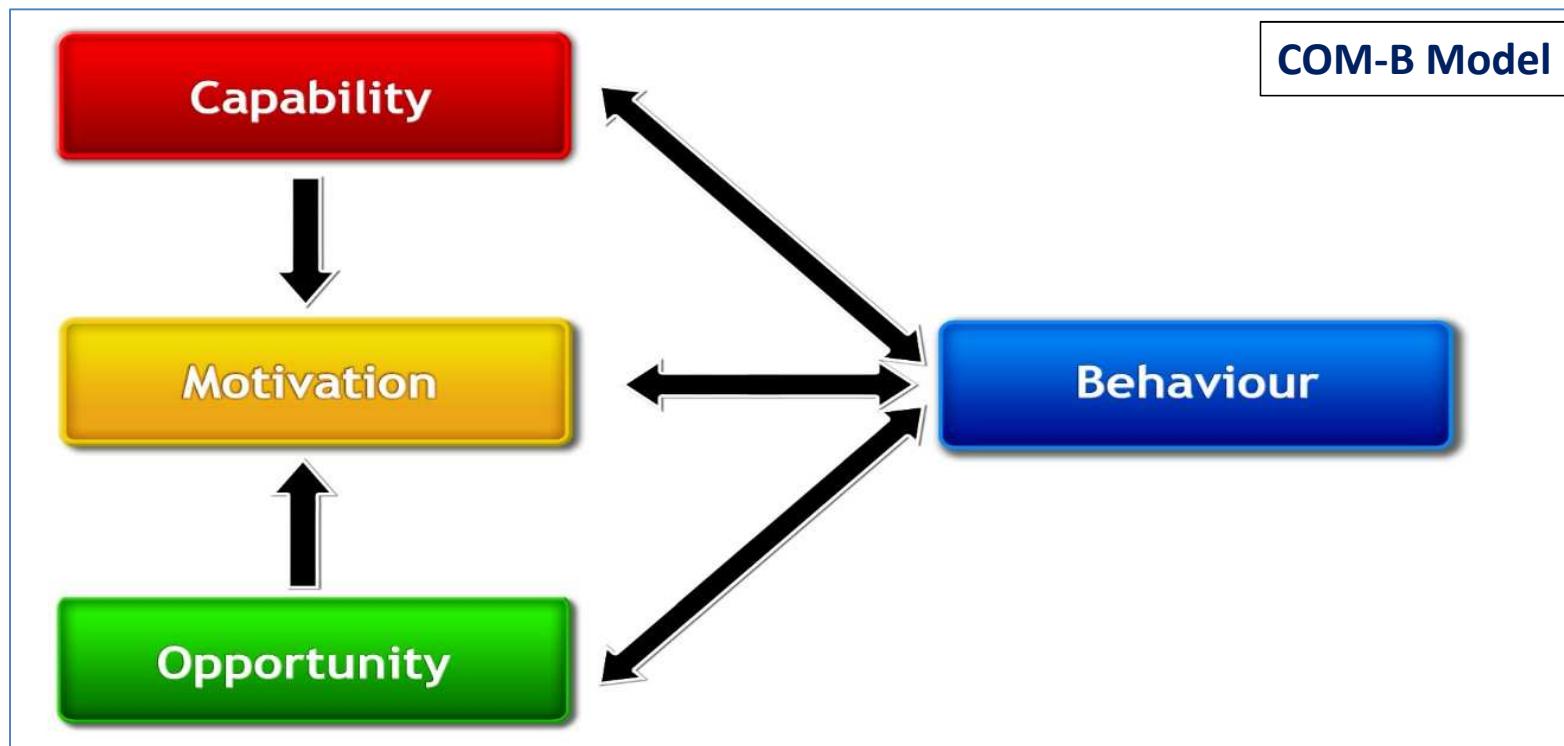
Practical implications

- Provide patients with low self-efficacy opportunities to achieve goal success
- Patients may need assistance to implement plans and acquire skills to achieve their goals
- Ensure reflection on goal achievement as well as the *patient's effort* resulting in achievement
- Rehabilitation goals and patient goals should align to enhance motivation and engagement

Summary

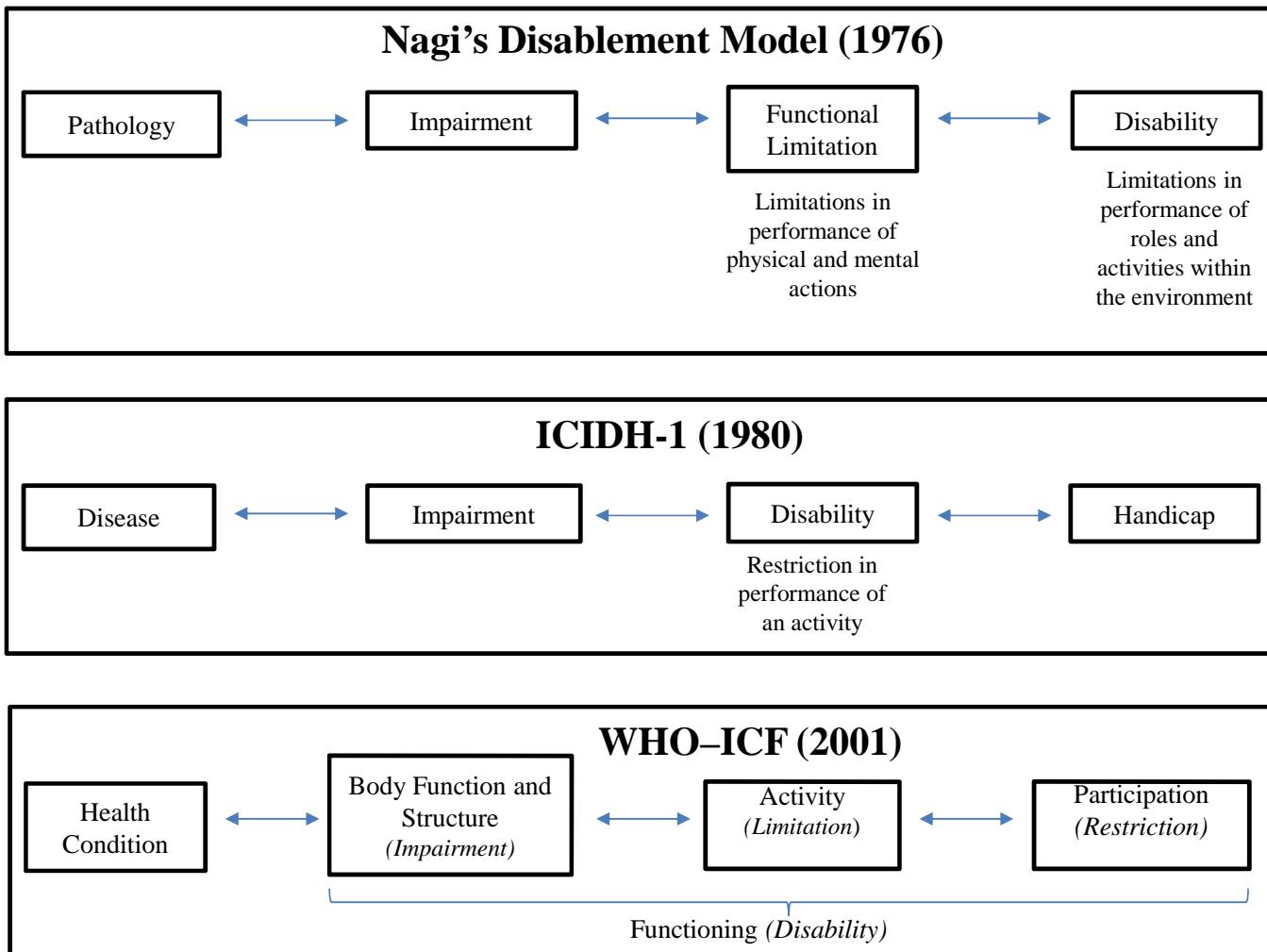
- A rehabilitation perspective views symptoms as a threat to patient function
- ADLs disability represents an important outcome for patients, families, professionals and services
- Goal setting is a key feature of rehabilitation that can often enhance engagement in physical activity

Behaviour Change Model



Michie S, Atkins L, West R. The behaviour change wheel: a guide to designing interventions. *Needed: physician leaders.* 2014;26.

Models of disability



- Differentiates disability and function
- Acknowledges socially defined roles and tasks
- Broad concept of disability as anything outside “normal range”
- Subsequently revised using disability as an umbrella term
- Common language similar to ICD-10

Patient rehabilitation goals – UK hospice

Rank	WHO-ICF code, domain	n (%)
1	d4, Mobility	79 (30)
2	b1, Mental functions	40 (15)
3	d2, General tasks and demands	37 (14)
4	d9, Community, social and civic life	33 (12)
5	b4, Functions of the cardiovascular, haematological, immunological and respiratory systems	20 (8)
6	d5, Self-care	18 (7)
7	d6, Domestic life	12 (5)
8	b2, Sensory Functions and pain	10 (4)
9	b7, Neuromusculoskeletal and movement related functions	8 (3)
10	d7, Interpersonal interactions and relationships	3 (1)