Biopsychosocial model and goals

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Content

- What is rehabilitation?
- Central role changing behaviour
- Requirements to change behaviour
- Goal setting; process and benefits

Messages

- Behaviour change requires learning
  - Depends upon motivation; wanting to change
- Engaging the patient requires
  - Understanding what patient wants
  - Acknowledging patient's values
- Goal setting
  - Sets long-, medium-, and short-term goals
  - Ensures engagement and better outcome
  - Also: helps plan and coordinate action of team

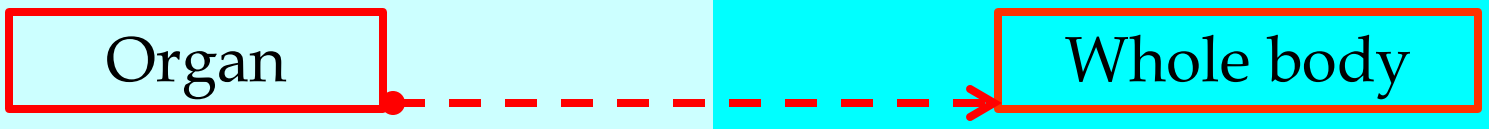
Patient's view of healthcare

- Attends doctor with a problem that he/she **attributes** to illness (disease)
- A 'problem' encompasses both:
  - Experiences (symptoms)
  - Restriction on what they can do (activities)
- Usually wants to return/carry on with normal (for them) activities
  - And (re)engage in wanted social roles

Medical model of healthcare

- A **problem-solving** process
- Focus on bodily disease (pathology)
- Primary goal is treatment of disease to:
  - Eradicate or reverse disease/tissue damage
  - Control disease, if unable to cure
- Also concerned about symptom-control
- Works in reductionist, scientific model
  - Biomedical model of illness

Illness within biomedical model



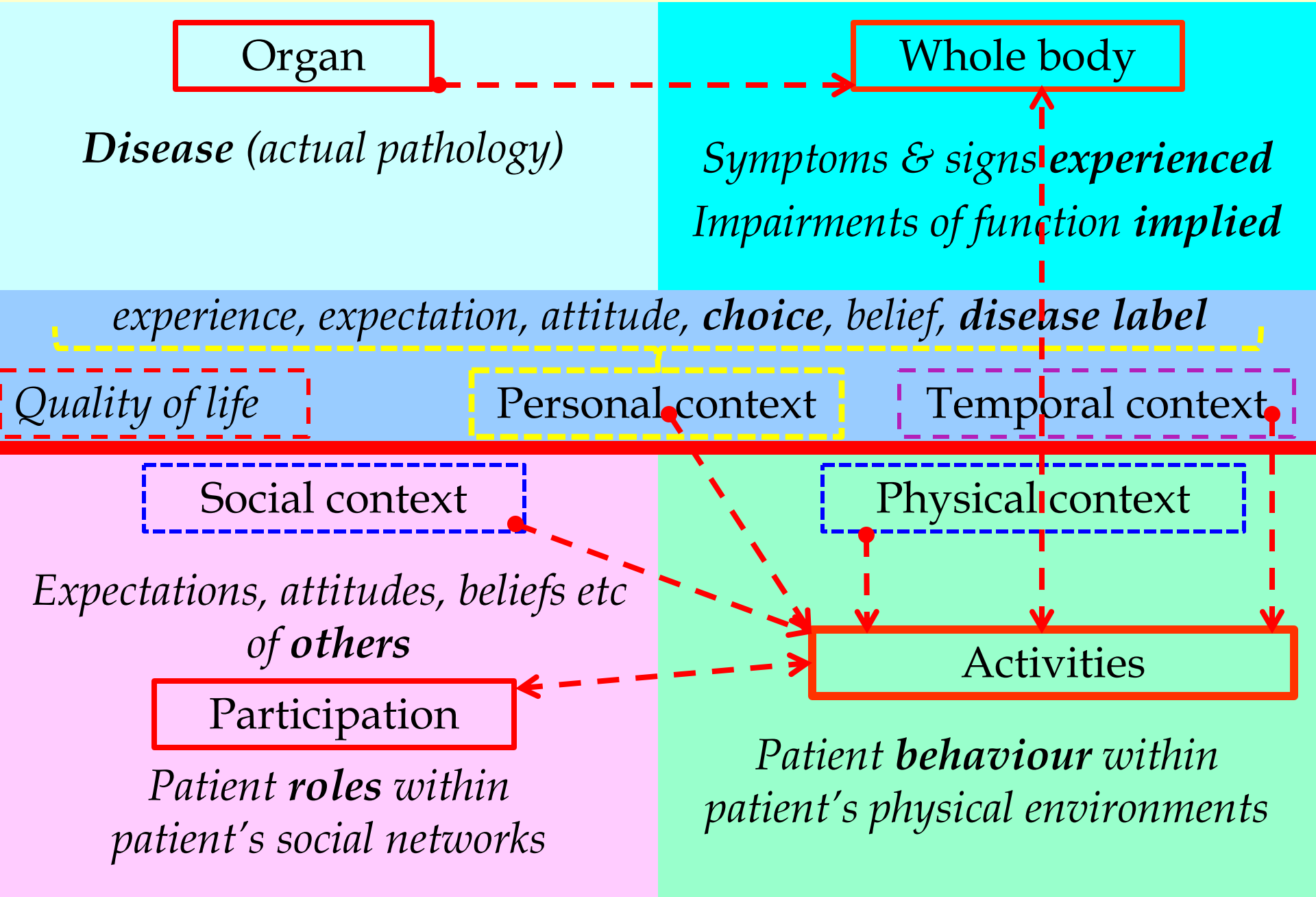
Disease (actual pathology)

*Symptoms & signs **experienced***

Rehabilitation healthcare model

- An **educational**, problem-solving process
- With a focus on **disability**
  - Considers **all** factors including environment
- That works with a **holistic** model of illness
  - Biopsychosocial model of illness
  - Four levels:
    - Pathology, symptoms, disability, social roles
  - Four contexts:
    - Personal, physical, social, temporal (time)
- Acknowledges importance of **disease**

Illness within a holistic, biopsychosocial model



Aims of rehabilitation *(outcomes)*

- To maximise social participation of patient
  - Optimise role function in social networks
  - Optimise social functioning (networks)
- To maximise well-being of patient
  - somatic **and** emotional
  - achieving satisfaction (adaptation)
- To minimise stress on & distress of relatives
  - somatic **and** emotional

Major objectives of rehabilitation

- Maximise or optimise the patient's
  - **Behavioural repertoire** (their activities)
  - Ability to adapt to changes in life circumstances
  - Environment (physical and social context)

- Minimise the patient's distress

Functional activities

- Aim is to optimize social roles **through** increasing **functional** activities
- A 'functional activity' is:
  - A **goal-directed** set of actions
- This is equivalent to ***behavior***

- Therefore process of rehabilitation is one of **helping a patient to change behaviour**

Rehabilitation – learning is key

- Need to (re-)learn how to:
  - undertake a previous activity, and/or
  - adapt the method of achieving goal, and/or
  - undertake **new** social roles and activities
- All require repeated practice of activities
- This requires engagement and motivation
- Therefore need to identify **patient-centred goals**, goals the patient wants to achieve

First, formulate case

- Whole team meet to agree on the
  - Important factors affecting patient's disability
  - Inter-relationships between these factors
  - Important patient values
  - Goals that could be achieved

Second, goal-setting

- Use patient values and priorities to
  - Set potentially achievable long-term goals
- Need to identify goals relevant to patient
- But also need to:
  - Order goals
    - Higher order, superordinate goals, and
    - Lower order, proximate goals
  - Link proximate goals to distant goals
    - Must ensure patient understands the link
- **Must be patient-centred**

Theoretical basis

- Scobie L, Wyke S, Dixon D
- Identifying and applying psychological theory to setting and achieving goals in rehabilitation
- *Clinical Rehabilitation 2009;**23**:321-333*

- A systematic review

Social cognitive theory (Bandura)

- This theory
  - Has self-efficacy (belief in ability to effect change) as its central feature
    - Goals are central to self-efficacy
  - Underlies many self-management strategies
    - Patients sets own goals and action plans

Goal setting theory (Locke & Latham)

- This theory concerns changing behaviour
  - Central focus on role of goals in changing behaviour
    - Investigated characteristics of effective goals and goal setting processes
- Originally research in business arena

Health Action Planning Approach (Schwartzer)

- Two components
  - Motivational
    - Appreciation of risk of loss (threat)
    - Belief in ability to have an influence
  - Volitional
    - Action planning
    - Coping planning

See: http://www.hapa-model.de

Other theories found

- Proactive coping (Aspinwall & Taylor)
  - Similar to social cognitive theory and health action approach
- Self-regulatory model of illness behaviour (Leventhal)
  - Illness representation and emotional response
  - Action planning
  - Appraisal

Recent Theoretical Framework

- Scobbie L, Dixon D, Wyke S
- Goal setting and action planning in the rehabilitation setting: development of a theoretically informed framework
- *Clinical Rehabilitation 2011;**25**:468-482*

- Follow-on from review; a system for goal setting in rehabilitation

Developed an overall theory

- Three phases in process
  - Motivational phase
    - Developing goal intentions
      - Expectations, self-efficacy
  - Setting goals phase
    - Attributes of goals
  - Action phase
    - Initiating & maintaining goal-directed behaviour
      - Self-efficacy, planning, feedback

(A) - intervening variables

- Identifies significant intervening variables:
  - Self-efficacy, outcome expectancies
  - Degree of challenge
  - Appraisal of outcome

- Need to be considered throughout

(B) – a reiterative, cyclic process

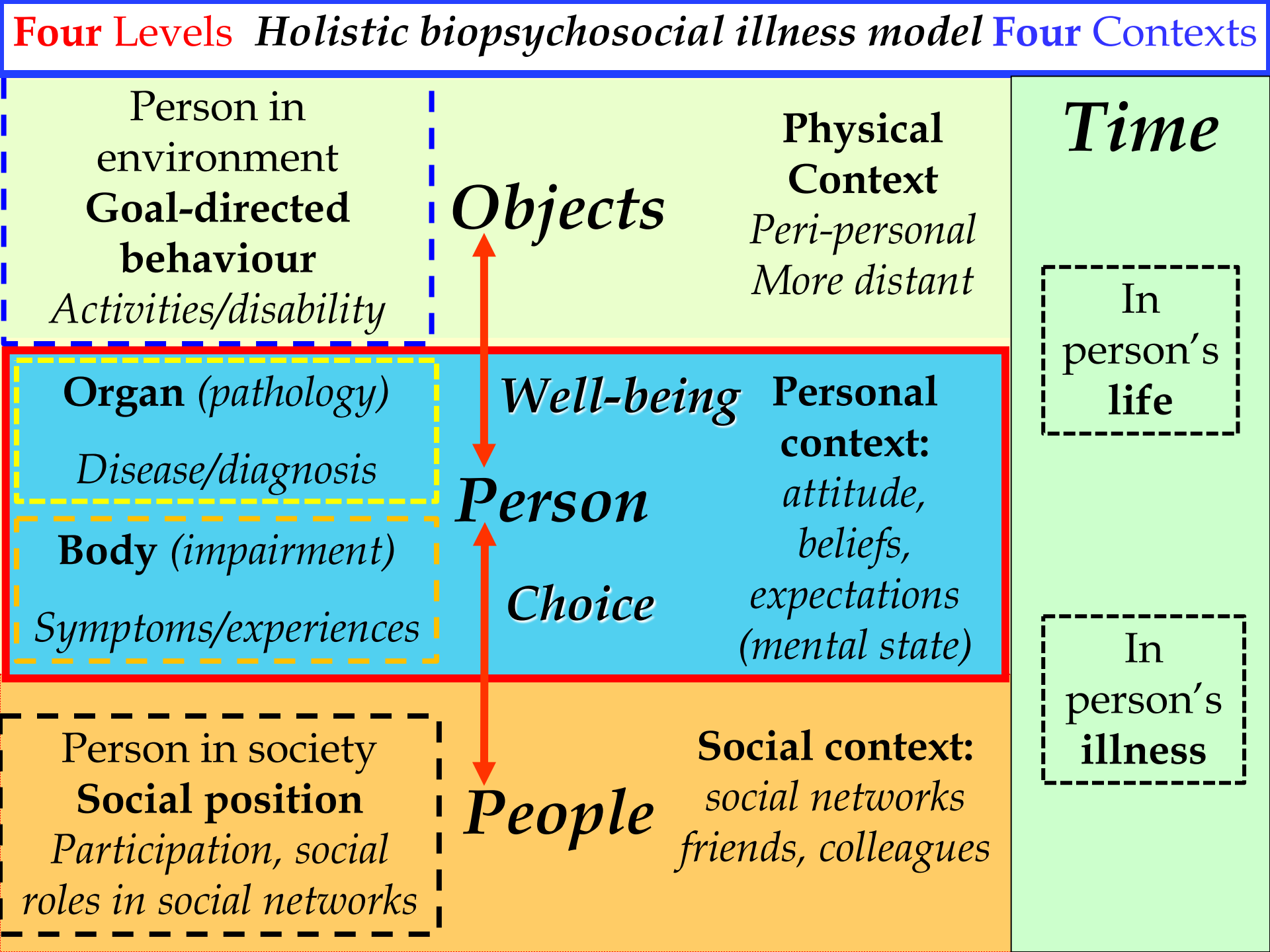
- Four stages (**and action**)
  - Goal negotiation
    - Explore life goals and where is now
    - Outline potential goals
  - Goal setting
    - Specify, agree difficulty
  - Plan (and then undertake actions)
    - Actions needed
    - Coping (overcoming obstacles)
  - Appraisal and feedback
    - Evaluate progress

Complexity – what is it?

- The essence of complexity is uncertainty
  - Difficult to predict effect of an action/future
    - Depends upon many other variables **and/or**
    - Intrinsically not predictable
- Being complex has two components
  - Having many parts, involving many factors
  - Relationships between parts being non-linear
- Complexity is usually relative

Complexity in rehabilitation

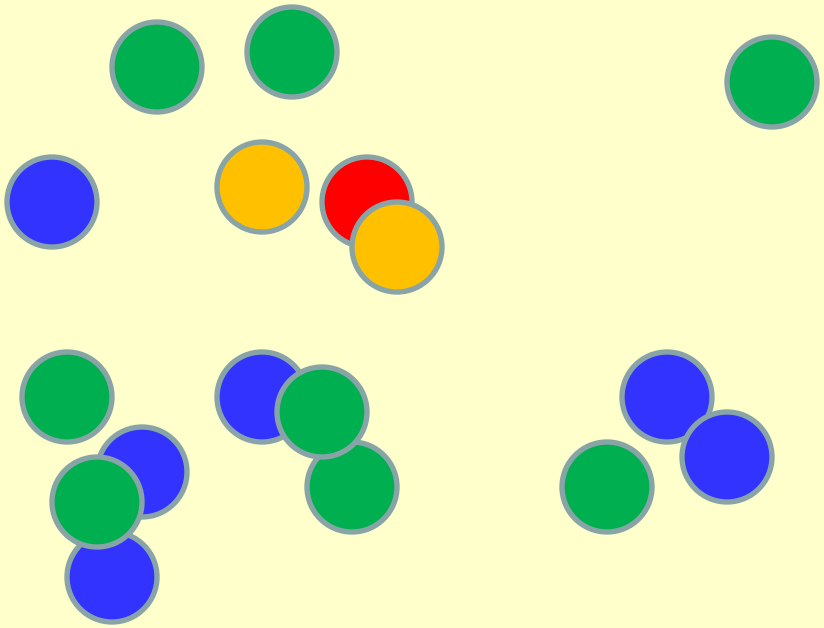
- Clinical situation is complex
  - Biopsychosocial model
    - Many components **and** non-linear relationships
- Rehabilitation process is complex
  - Problem solving model within illness
    - Multiple (potential) actions
    - Multiple actual people and organisations involved
    - Order of interventions matters
    - Effects are non-linear


Four Levels Holistic biopsychosocial illness model Four Contexts
Person in environment
Goal-directed behaviour
Activities/disability
Objects
Physical Context
Peri-personal
More distant
Time
In person's life
Organ (pathology)
Disease/diagnosis
Well-being
Personal context:
attitude, beliefs, expectations
(mental state)
Person
Body (impairment)
Symptoms/experiences
Choice
In person's illness
Person in society
Social position
Participation, social roles in social networks
People
Social context:
social networks
friends, colleagues

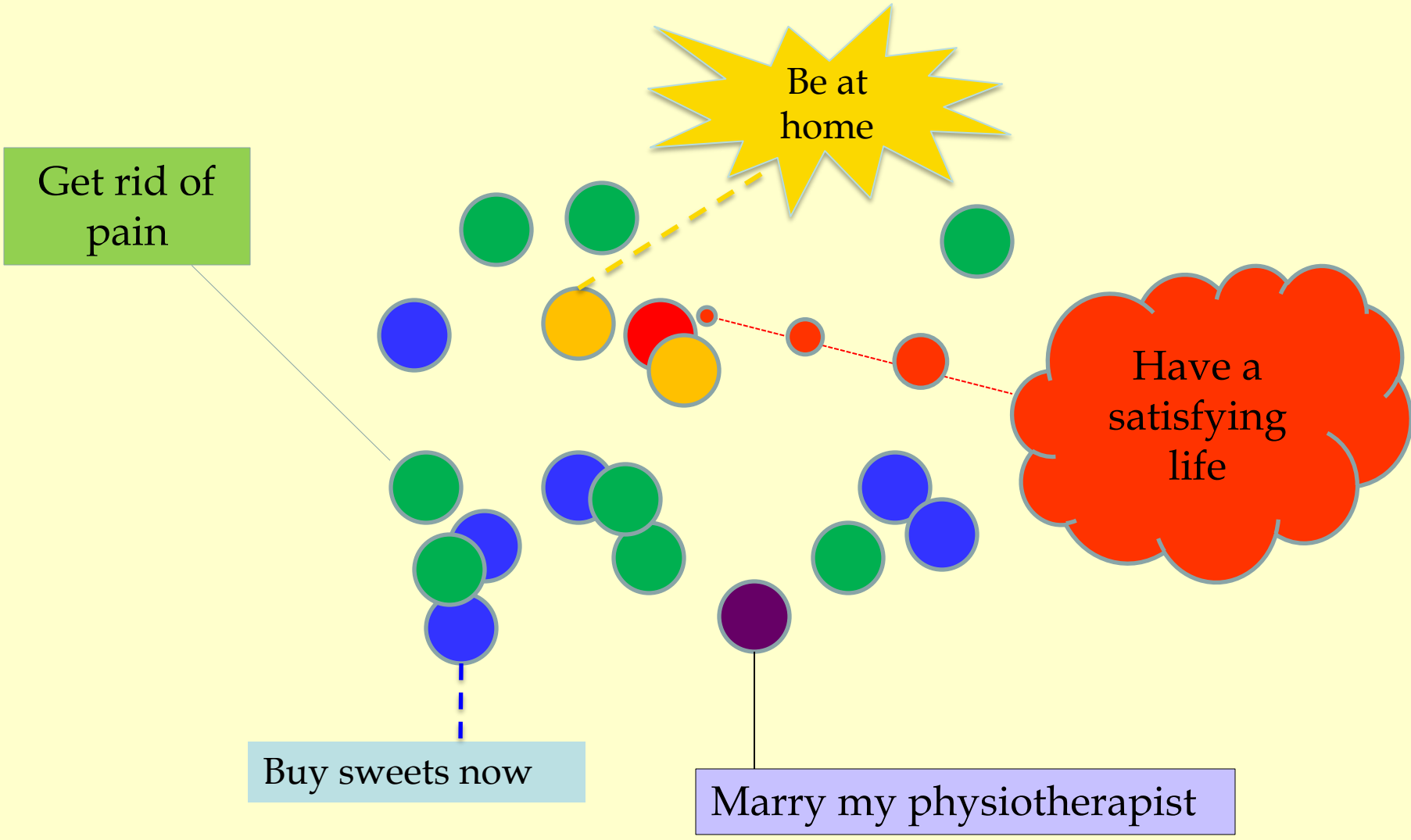
Complexity of goals

- Goals may have
  - Different time-scales
  - Be in different domains (of illness)
- Goals may vary in degree of abstractness
  - *"To eat this cake" : "to be happily married"*
- Inter-relationships of activities and goals
  - One activity may work towards several goals
  - One goal may need several activities

Patient's view of goals



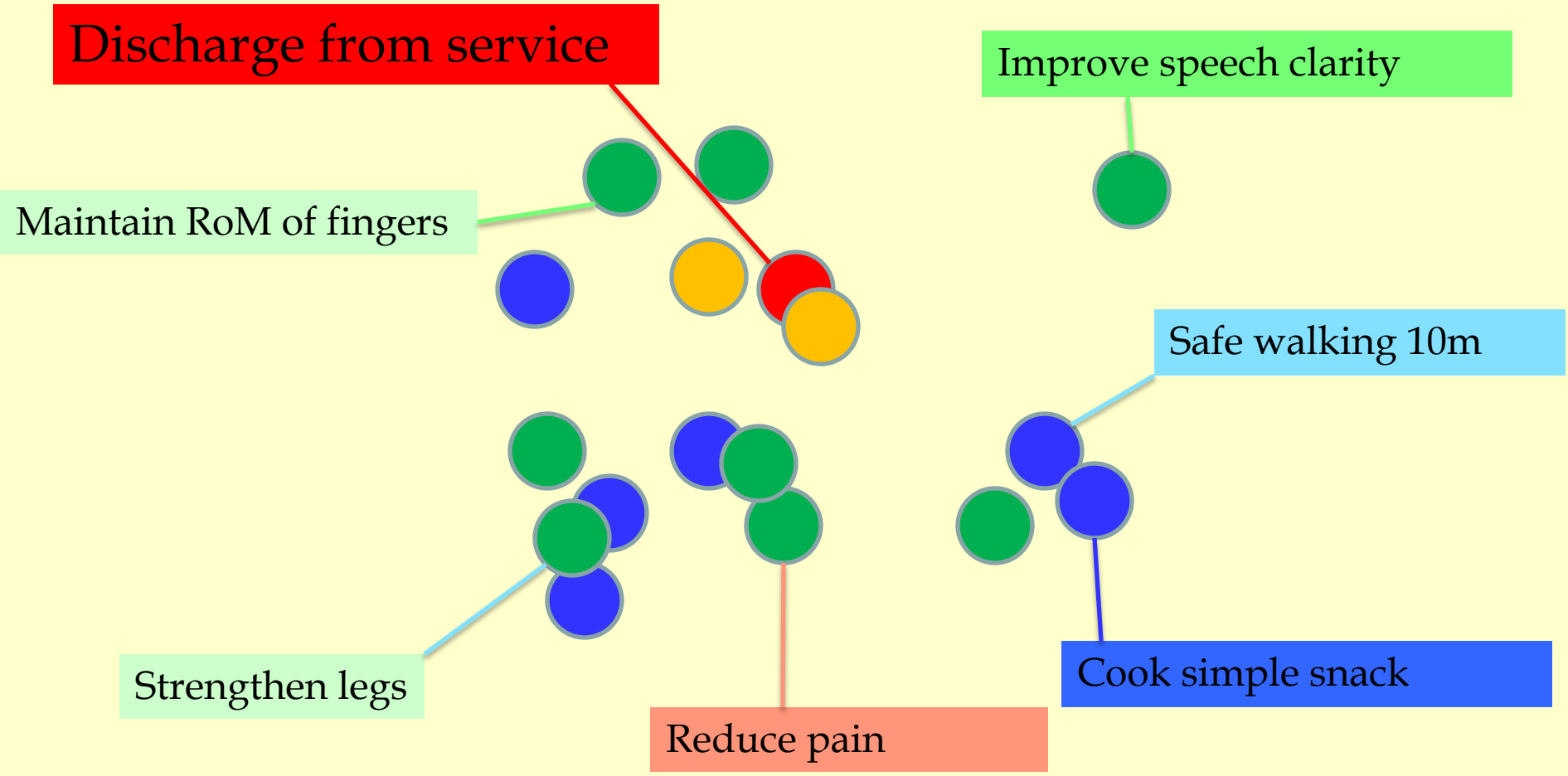
Patient's view of future goals



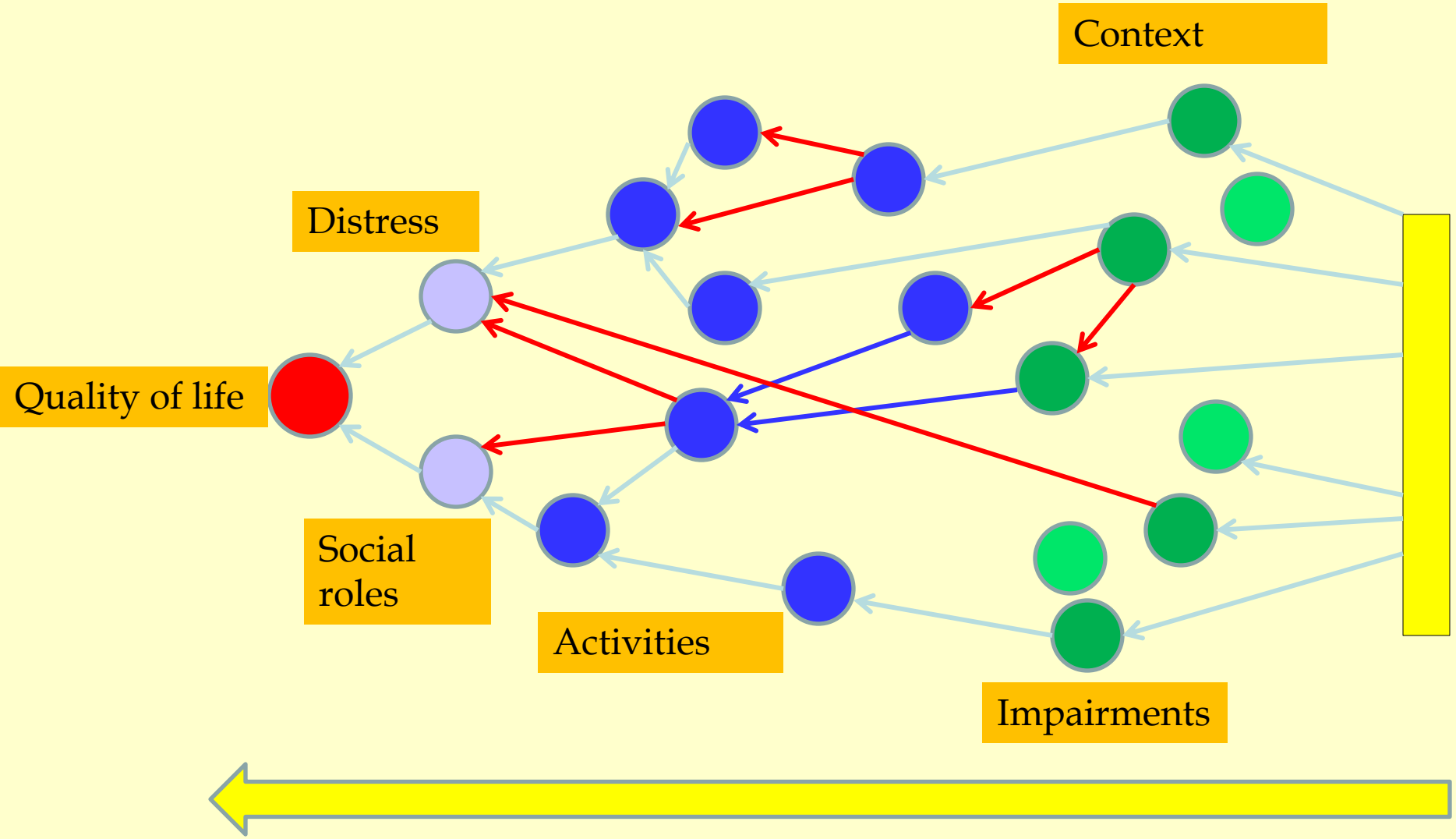
Patient's view

- Mixes
  - Immediate and long-term
  - Important and trivial
  - Achievable and impossible
  - Within and outside remit of rehabilitation
- The patient will rarely see connections and interdependencies

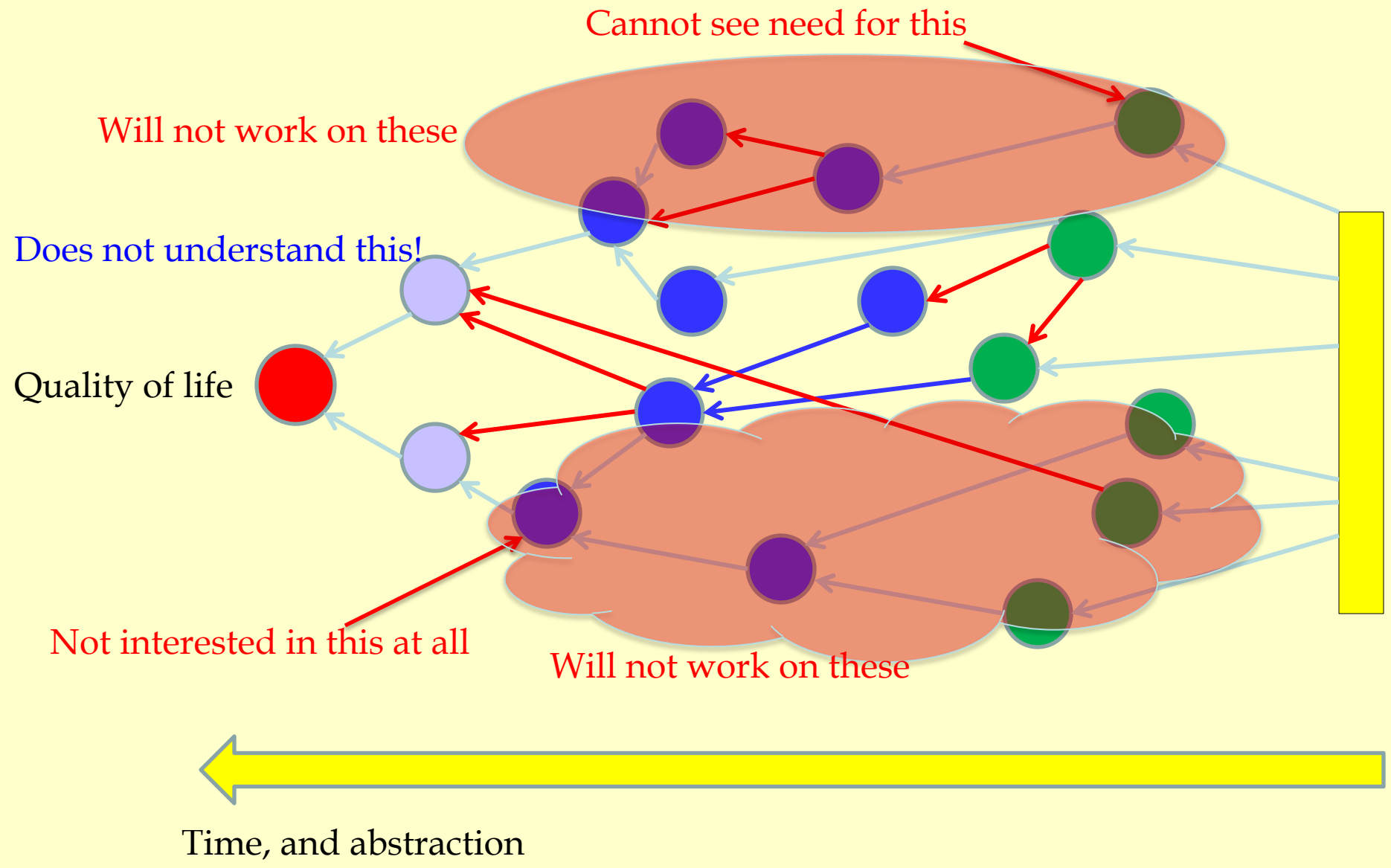
Therapists' view of goals



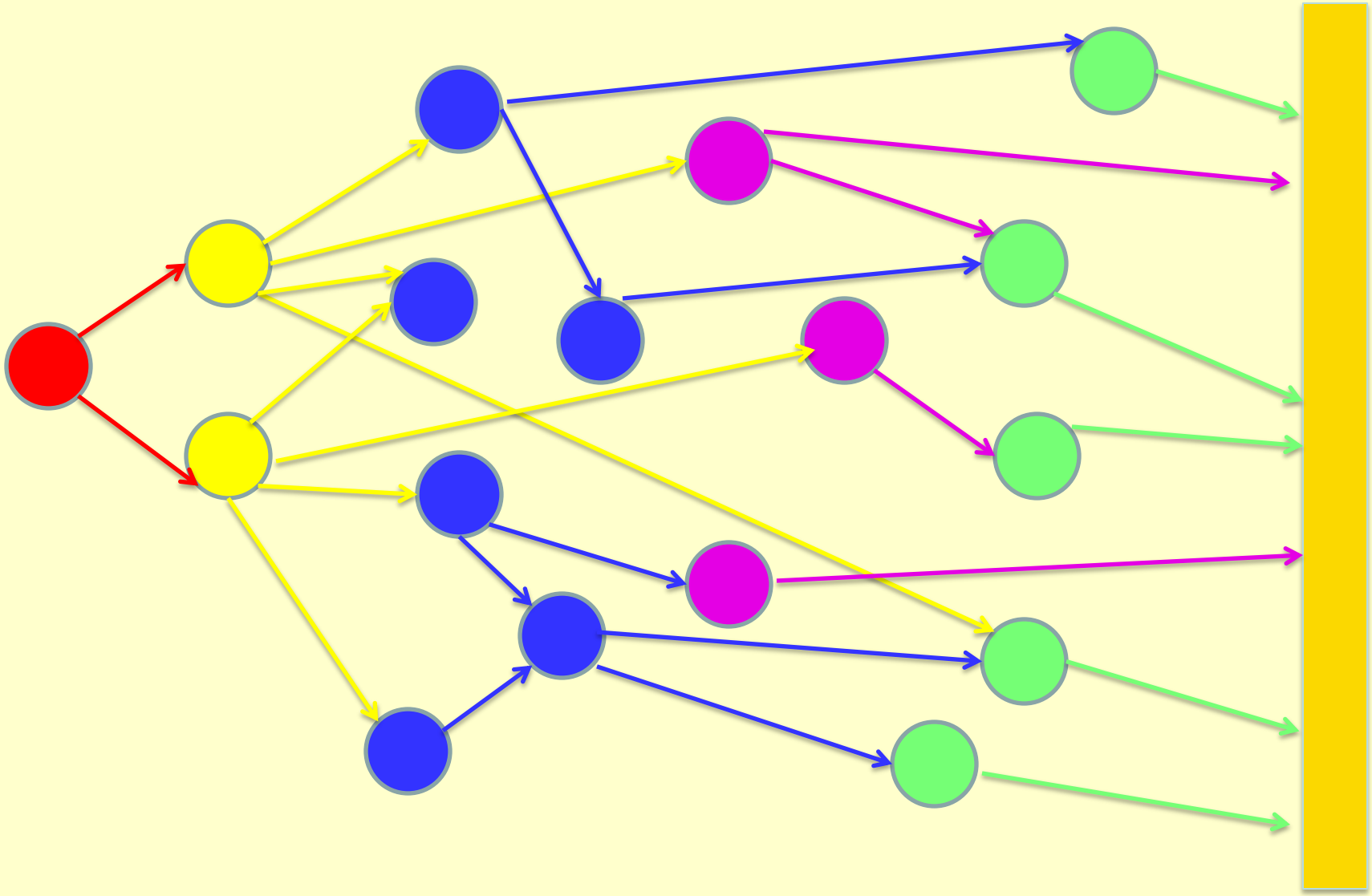
Multi-disciplinary ehabilitation **team's** view of goals



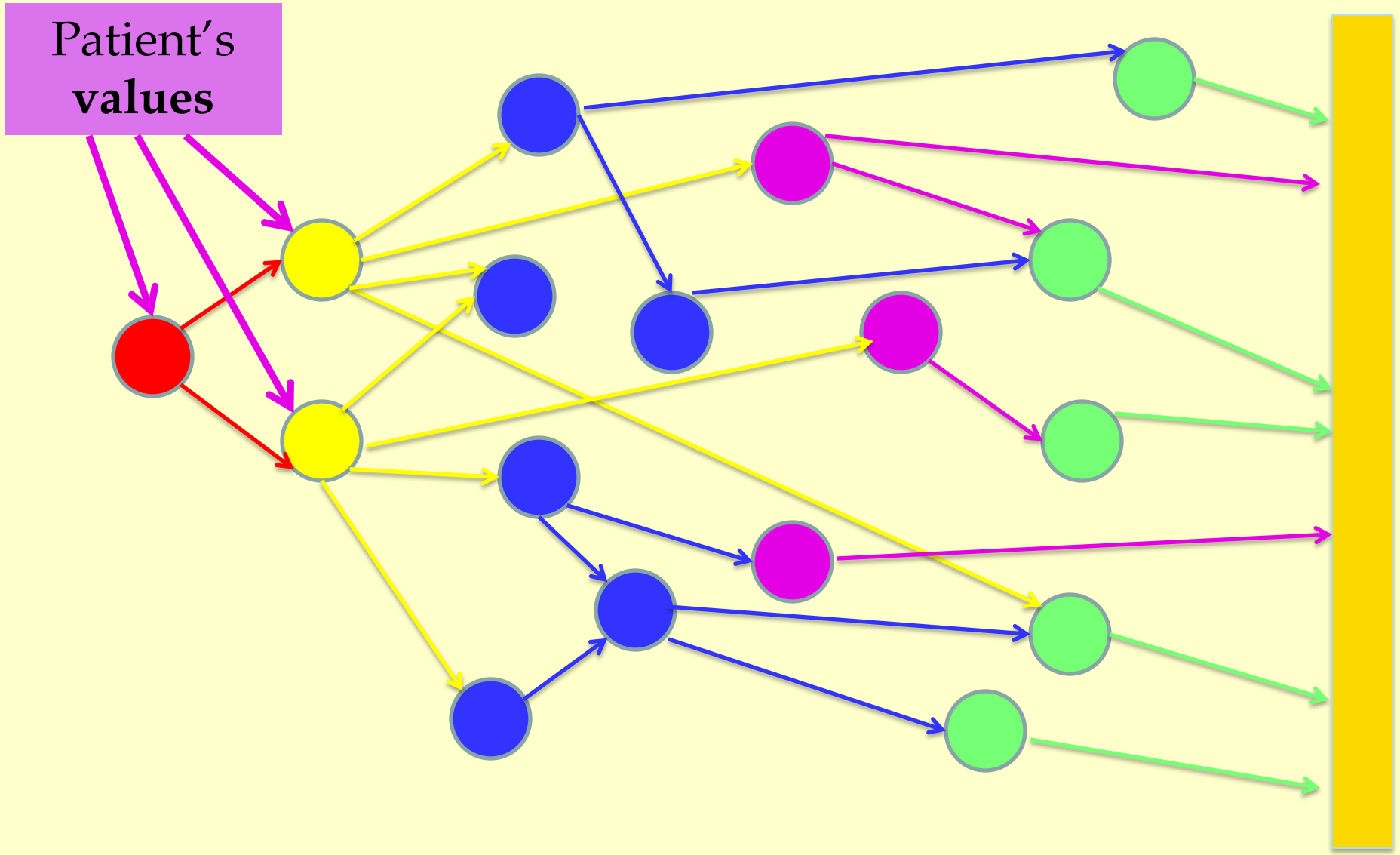
Patient's view of MDT's goals



Inter-disciplinary view of **patient-centred** team's goals



Patient's view of **IDT** team's goals



Process of goal setting and use

- Four stages (**and action**)
  - Goal negotiation
    - Explore values, life goals and current situation
    - Consider prognosis and outline potential goals
  - Goal setting
    - Specify, agree difficulty
  - Plan (and then undertake actions)
    - Actions needed
    - Coping (overcoming obstacles)
  - Appraisal and feedback
    - Evaluate progress

Goal negotiation

Identify goal domains of importance/relevance to patient

Derived from values if needed

Identifying values, life goals

How?

Methods

- Structured interview
  - Residential/accommodation; personal ADL; leisure/hobbies; work; **partner relationship; family relationships; contacts with friends** etc; religion or life philosophy; money
- Informal conversations
- Relatives and others
- Past life and choices made
- General common values/goals

Goal setting in practice

- Should (must) also identify
  - Wishes/expectations of all other interested parties
    - Family, other agencies, employer, funder etc
  - All practical limitations
    - Resources, time, expertise etc
- Need to establish priorities

Practical guidance

- Explore patient goals carefully
  - Distinguish stated goal from underlying goal
    - Walking to shops
      - actually meeting people outside home
    - Work
      - actually money, or getting out of house

Goal negotiation

- Consider prognosis & potential outcomes
  - Team, using expertise
- Negotiate and set goals in time-order
  - Long-term first
  - Considering which:
    - Rehabilitation team can influence
    - Other people/organisations can influence
    - Cannot be influenced by team/other professionals

Long-term goals - aims

- Social role functioning (and minimise distress)
  - In a social and physical context
- Six or more months away
  - At limits of foreseeability, after rehabilitation over
- Based on patient's life priorities, values etc
- Multi-agency
  - Much is outside control of rehabilitation
  - Involves housing, social services, other organisations

Medium-term goals - objectives

- Activities (behaviours) & context
  - Personal ADL to vocational activities
- Four to eight weeks away
  - Reasonably predictable, while in rehabilitation
- Working towards and linked to aims
- Team (multi-professional) involved
  - Inter-professional work, joint/collaborative actions
  - Within control of the team

Short-term goals - targets

- Any level
  - but often context or impairment
- Days to weeks away
  - Date can be specified
- Linked to an objective (usually)
- Single, named person (in or out of team)
  - A very specific action

Goal negotiation - output

- Series of broad goals in many domains at many time-frames
  - Need to consider inter-relationships and dependencies
- **In principle** all derived from patient life goals and values
  - **In reality** …
    - Rarely actually the case!
    - But should nonetheless be linked/relevant

Goal setting

Specify and agree difficulty

SMART?

GAS?

Rehabilitation goal setting

- Consider what is actually achievable
  - Within resources available
  - Given patient's situation
  - Considering patient's goals
- Identify links, pathways, dependencies
  - Sort goals into groups
  - Consider alternative pathways to goals
  - Identify key intermediate goals

May improve team work

- A team is *"a group of people working towards common goals."*
- Goal setting may help
  - Motivate individual members of team
  - Identify need and opportunities for working collaboratively
  - In inter-disciplinary v multi-disciplinary work
  - Engage 'outsiders' in team?

Goals should organise actions

- Goal pathways and links show:
  - Totality of actions needed
    - Do not miss important actions
  - Sequence of actions needed
- Can help ensure that
  - The right person
  - Does the right thing
  - At the right time

Goals expose hidden barriers

- Conflicting goals
  - Between patient &/family
  - Within the team
  - Between team and others
    - Patient, external parties etc
- Unrealistic expectations/goals
  - Any party!

Goals educate/inform patient

- Goals set
  - Carry implications about change
    - Make explicit stated prognosis
  - Allow some flexibility/uncertainty
    - Leaves some hope, within limits
- May also help emotional adaptation

SMART goals

- We are encouraged to write all goals in a SMART way.

- But …

SMART goals?

- Wade DT
- Goal setting in rehabilitation: an overview of what, why and how.
- *Clinical Rehabilitation 2009;**23**:291-295*

- Review of SMART – origin, meaning, etc

SMART (ER)

- **S**pecific, stretching, significant etc
- **M**easureable, meaningful, maintainable etc
- **A**ttainable, agreed upon, *attributable* etc
- **R**ealistic, relevant, recorded, reasonable etc
- **T**ime-based, tangible, tactical etc

- **E**thical, exciting etc
- **R**ecorded reviewed, rewarded etc

SMART reference

- Doran GT
- There's a S. M. A. R. T. way to write management's goals and objectives.
- *Management Review 1981;**70.11**:35-36*

Doran 1981

"In certain situations it is not realistic to attempt quantification …

… can lose the benefit of a more abstract objective in order to obtain quantification. It is the combination of the objective and its action plan that is really important.

… the suggested acronym doesn't mean that every objective written will have all five criteria."

SMART - HOW

- Bovend'Eerdt TJH, Botell RE, Wade DT
- Writing SMART rehabilitation goals and achieving goal attainment scaling: a practical guide.
- *Clinical Rehabilitation 2009;**23**:352-361*

- A step-by-step guide, including **goal attainment scaling** (GAS)

Writing a SMART goal

- Specify the target **activity**
- Specify **support** needed (contextual factors)
  - People
  - Equipment – physical aids
  - Structural factors – written prompts, alarms etc
- **Quantify** performance
  - Time (time taken, frequency etc)
  - Amount (numbers, distance etc)
- Specify **when** to be achieved

SMART - conclusions

- Need to set goals that are:
  - Important to patient
  - Specific
  - Challenging
- SMART helps only **one** of these
  - Being specific
- Therefore use sensibly

Goal Attainment Scaling

A potential method to:

- Increase involvement and motivation
- Measure outcome in a personalised way

Using GAS - evidence

- Hurn J, Kneebone I
- Goal setting as an outcome measure. A systematic review.
- *Clinical Rehabilitation 2006;**23**:345-351*

- May improve patient outcome

Goal Attainment Scaling

- Involves specifying different levels of achievement.
- Many vary one or more of:
  - Support needed: less or more
  - Quantity: less or more
  - Time to reach goal: less or more

Goal Attainment Scaling

- Should be done by treating therapist in conjunction with patient
  - Identify important goal domains and what is important
  - Set realistic different states that can be scored

GAS – improving condition

+ 2	Much more than expected
+ 1	More than expected
0	The goal set
- 1	Some progress, but not as far as aimed for
- 2	No change from outset
- 3	Worse than at outset

GAS – deteriorating condition

+ 3	Better than at outset
+ 2	No change from outset
+ 1	Some deterioration, not as much as expected
0	Goal set
- 1	Worse state than expected/aimed for
- 2	Much more deterioration than aimed for

GAS - scoring

- Can combine multiple domains to give a single score
  - Equation available
- Can add weights
    - Importance (to the patient)
    - Difficulty (therapist judgement)
  - **Unlikely to add value**

GAS - weaknesses

- Bias of patient and scoring therapist
- Only applies to goals that can be measured
  - Risk of ignoring important goals
- Unreliability of scoring

GAS – a caution

- Should not be used to determine funding and/or continuation
  - Demotivating
  - Set ‘easy’ goals to ensure achievement

GAS - conclusion

- Probably helps in process of setting goals
  - Focuses on specification
  - Gives more challenge (= more motivation)
- Might measure outcome in RCT
  - Set **before** randomisation
  - Measured by independent observer
- Great caution using score in practice
  - Risk of demotivation if **used** to decide action

Planning actions

Direct actions needed

Coping actions - overcoming obstacles

(i.e. learning goals, strategies)

Planning actions

- Plan and organise (multi-disciplinary) actions needed
  - Who, where, when, how etc?
  - Note inter-dependencies and time order
- Consider
  - When to check on progress and how
  - Alternatives if cannot
    - Different goals?
    - Different means?

Planning

- Documentation
- Monitoring progress
  - Intermediate goals
  - When, how
- Contingency plans
  - Failure of key actions

Appraisal and feedback

Evaluate progress

Evaluation/appraisal

- Need to review progress
- Discuss **reasons** for success or failure
  - Try to enhance self-efficacy
- If failed, consider
  - Alternative means, and/or
  - Adjusting goals/expectations

Final points

Hierarchy of goal setting

- Team, long-term
- Individual therapist, middle-term
- Session, short term
- Now, immediate

Why set goals - summary

- To improve efficiency & effectiveness
  - Motivation of patient and team
  - Organisation & completeness of actions
- To monitor progress and outcome
- To help patient
  - Understand prognosis and rehabilitation plan
  - Engage with treatment and process

Terminology

- Do not agonise over terminology
- **But** do **place each goal in its context**
  - logical connections
  - inter-dependence
  - pathway over time
  - Linkage to overall, higher-level aims

Cost of goal setting process

- Need to balance resources consumed by process again benefits
- Currently unknown if net benefit

Goals change behaviour more if

- Specific
  - Not simply “Do your best”
- Challenging
  - Even if actually not possible
- Reward actual achievements
  - If reward tied to goal success, then all fails

Goals change behaviour more if

- Set both
  - long-term (global) goals **and**
  - short term (more specific) goals

Goals change behaviour more if

- The patient either:
  - Has the necessary skills and/or knowledge (i.e. self-management skills)
    OR
  - Is given time and instruction to acquire self-management skills/knowledge
    - So-called 'learning goals'

Goals change behaviour more if

- The patient is committed to the goal:
  - Participation in setting goal is **NOT** necessary
  - **But** relevance/importance of goal must be accepted and agreed by the patient

Goals change behaviour more if

- Feedback is given
  - During the process of learning and changing
- Self-efficacy of subject is high
  - (i.e. they have the belief that they can work to achieve the goal)
  - Challenging goals increase self-efficacy

Goals change behaviour more if

- The type of goal is appropriate to the complexity of the task
  - Learning goals are better if task is complex

Conclusion

- The central process in rehabilitation is in undertaking a full, effective goal setting process because it depends upon:
  - A thorough analysis of the problems
  - A good knowledge of all potential actions
  - Understanding fully the patient's wishes, expectations, and priorities
  - Involvement of the whole team
    - Including family and others

Goal-setting, key to rehabilitation

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