#### **Rehabilitation Principles**

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#### Content

- What is rehabilitation?
- Learning
   need to practice
   Goal setting
- Adaptation
  - ➢Person
  - ➤Context
- Systematic approach

## Messages

- Use holistic biopsychosocial model
- Use goal setting
   within problem-solving process
   With long-term goals on social matters
- Focus on practicing activities, not therapy
- Always also focus on adaptation
   Especially changing the context
- Use structured documents

### What is rehabilitation?

• Was considered:

Physical medicine – exercise and equipment
 Improving conditions (& spinal cord injury)

- Now much more about:
  - ➢Social outcomes
  - >Adaptation
  - ➢Patient-focus
  - >All conditions

## Rehabilitation is:

- An educational, problem-solving **process**
- Focused on **disability**
- Aiming to optimize **social participation**
- Working within a holistic **model of illness**

• Also minimizes stress on and distress of the family, where possible

## Rehabilitation

- Is a complex process acting on a complex situation
  - ➢Multiple
    - Variables
    - People
    - Actions
- Needs a way to simplify matters

## Principle one

Use an appropriate model of illness
 Coherent, comprehensive (holistic)

 The best model is the 'holistic, biopsychosocial model' **Four** Levels Holistic biopsychosocial illness model Four Contexts

Person in environment <b>Goal-directed</b> <b>behaviour</b> Activities/disability	C	bjects	<b>Physical</b> <b>Context</b> <i>Peri-personal</i> <i>More distant</i>		<i>Time</i> In
<b>Organ</b> (pathology) Disease/diagnosis <b>Body</b> (impairment)	P	Well-be erson	eing Personal context: attitude, beliefs, expectations	In person's illness	life
Symptoms/experiences Person in society Social position Participation, social roles in social networks	I	People	(mental state) Social context: social networks friends, colleagues		In person's <b>illness</b>

# Biopsychosocial model helps:

• Ensure **all** relevant factors are considered

Facilitates a systematic approach to data collection (= assessment) and analysis

- Highlights importance of the person
   Must consider attitudes, beliefs, expectations, goals, social networks
- Emphasises important of context (all four)
   Altering context as important as altering the person's capabilities.

### Evidence

- Effectiveness of rehabilitation using model
- Increasing use of model
- Predictions of model being verified

➢Functional illness

## Principle two

• Learning by the patient is the central process (for the patient)

 Rehabilitation clinicians are teachers (educators)

# Learning (education)

- Central patient process is learning to
  - Perform an activity now affected (limited)
    - As before, **or** in a new way
  - Achieve an activity goal in a new way
    - E.g. use wheelchair rather than walk
    - Write with non-dominant hand
  - Perform new activities (for new roles)

## Learning depends on:

- Practice
  - >In all settings and different circumstances
  - With feedback on performance
    - and change needed
- Motivation, which depends upon
  - Activity being wanted (goal achievement)
    - (Understanding link to goal, if not direct)
- Patient engagement in the process
   Actively, not a passive recipient

#### Evidence

- Good relationship between **practice** and outcome
- Poor relationship between therapy and outcome

### **Rehabilitation characteristics**

- Rehabilitation is complex
  - Multiple variables from multiple domains
    - Causes, and influencing factors
    - interventions
  - ➢Non-linear relationships
    - May be time dependent (i.e. order matters)
  - Long time scales
  - >Often several organisations or teams

## Principle three

• Need a multi-disciplinary team

## Data collection and analysis

The process of assessment is
 Collection and analysis of relevant data

Delivers a formulation of the situation:
Limitations, strengths
Prognosis
Options for intervention: what, what benefit
Identification of person's values and goals

## Data collection and analysis

- Requires many different professions
- Must be a team:
  - ➤A group of people
    - >With a single, unified purpose
  - Working in a common framework (model)
  - Using a common language
  - Within a single organizational unit (budget)
- Experts across (80% of) all domains/problems
  - Losses, abilities, prognosis, interventions

#### Evidence

• Research showing benefit all based of use of effective teams

## Principle four

• Need regular team meetings

## Team meetings - 1

to formulate situation, sharing
information from across whole model
ideas on relationships, causes etc
Opportunities for possible interventions
Likelihood of effects, risks etc
Information on patient's wishes, values etc

## Team meetings - 2

- Rehabilitation planning
  - Setting long-, medium-, and short-term goals
  - Agreeing all interventions
    - Focusing on intended goals
  - Organising interventions
    - What, who, when, where, how long

Ensuring close liaison with other agencies
 Documenting, sharing, and setting review

## Team meetings - 3

Regular, planned reviews of change
Observed changes compared with planned
New information available
Patient, context
Re-formulate
Plan again
Goals, organization etc

#### Evidence

- For goal setting, extensive
- For team meetings, little

## Change

• Change is part of everyone's life >With time, and effects of age Person adapts to changing circumstances • Loss of job, divorce, more money, friend dies No different because of illness to reduce illness (e.g. take medication) > Due to effects of illness

## Principle five

• People adapt to changes in circumstances

## Change

- Natural history of change
  - >May return to previous level, but may not
  - ≻May expect further losses
  - Time course varies
  - Rarely predictable at individual level
- Expectation (of person & family) may be incorrect – either way

#### Limitations and losses

- Bodily losses put an upper limit on what might be possible
  - >As for all people (e.g. unable to fly)
- Other factors limiting **activities** include
  - >Expectations and beliefs of self and of others
  - Motivation and goals
  - Context (physical, social, personal, time)

## Change - activities

#### Processes

Recovery - return of lost skills (impairment)

- Still may require re-learning how to do activity
- Recovery & adaptation regain an activity,
  - Learning a new way, including equipment

Adaptation (activities)

- Develop new goals social, activities
- Learn new activities (and change context

## Change – emotional state

- Readjust life goals and evaluation
   Evidence that quality of life (well-being) return to 80%
- Regain emotional stability

#### Evidence

Relatively little direct investigation

## Adaptation

- Rehabilitation must combine or balance
  - >Attempts at **recovery** (to 'normal'), with
  - Facilitating adaptation of
    - goals, and expectations,
    - means of achieving life goals,
    - emotional state

## Principle six

Considering and changing context is vital

## Context determines capability

#### Physical context

- Personal clothing, glasses, walking stick etc
- Nearby wheelchair, rails, stairs/steps, family
- Local buses, hills, accessible buildings
- General weather, people (as helpers)
- Can change e.g. supply a prosthetic leg

#### Social context

- Resources available money, day centres, support, healthcare rehabilitation etc
- Family, friends, social networks
- Culture beliefs, expectations

- Can change
  - E.g. reaction to back pain in Australia

#### Personal context

- Expectations, goals, attitudes, beliefs
- Resources experience of similar situation, money, house, etc
- Existing skills

Can change

Cognitive Behavioural Therapy

#### Evidence

Substantial for all contexts

## Principle seven

• Use a systematic approach

# Complexity

- Rehabilitation is very complex
  - Multiple possible and actual factors relevant in every patient
    - Several or many can be altered
  - >Multiple possible interventions; need to
    - Choose which are right for this person
    - Organise them and evaluate effectiveness

Multiple people and organisations involved

# Capacity of clinician

- This complexity cannot be handled by any clinical person on a sustainable, reliable basis
  - Must have systems to support consistent practice

## Two frameworks

- Biopsychosocial model of illness
   Covers all domains, cause and treatment
- Model of rehabilitation process
  - >Assess, and formulate the case
  - >Meet, and agree a rehabilitation plan
  - Act, to execute plan
  - >Evaluate, and re-iterate the cycle

#### Documentation

• Documents are essential as:

Memory aid to structure data collection
 Record of data and its analysis
 Communication between all team members
 Record of goals, for later evaluation

#### Evidence

• A characteristic of all studies showing effectiveness

## Modern rehabilitation

- Use biopsychosocial model of illness
- Focus on facilitating patient & learning
- Have a full multi-disciplinary team
- Regular rehabilitation planning meetings
- Facilitation patient's adaptation
- Never forget importance of context
- Use a systematic approach

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