

How to Develop and Progress a Patient Self-Management Program

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The World Health Organization (WHO) has been classifying the consequences of disease from a biomedical perspective as impairments, disabilities and handicaps since 1980.¹ This work was updated recently as the *International Classification of Functioning, Disability and Health (ICF)* document, to take better account of the functional status of the individual from a biopsychosocial perspective.^{1,2} The *ICF* classifies functional status in three interrelated dimensions:

1. Functions - specific structural and functional impairments.
2. Activities - actions that a person performs/functional disability.
3. Participation - social or work involvement.

When treating patients, it is important to bear in mind that each patient's goals for care are typically related to an activity intolerance or disability. The patient does not come in saying that he or she has an impairment with trunk extension. Rather, the patient says, "I have pain when I try to get up from a chair." There are numerous examples that people with major impairments (artificial limbs) who are not disabled can participate at high levels (e.g., a marathon). This begs the question: What is the goal of rehabilitation?

The final goal of rehab is to remove activity intolerances related to pain. Impairments may be important as intermediate goals, and to help identify the pathway of care, but they are not final goals of care.

Identification of the Patient's Exercise Prescription

Bearing this in mind, how is the correct exercise prescription arrived at? There are four steps:

First, identify the patient's goals: what are they having trouble with, that they want or need to do? In other words, what is the patient's activity intolerance (AI) or disability? Whenever possible, the patient's disability should be quantified with reliable, responsive tools such as the Patient Specific Functional Scale or Oswestry Disability Index.

Second, identify the patient's capabilities or functional deficits - what he or she can and can't do. In other words, identify the patient's functional range (FR) or impairment. The FR includes both the patient's mechanical sensitivities (MS) - what the patient feels; and abnormal motor control (AMC) - what the clinician observes. Whenever possible, the patient's functional capacity or impairments should be quantified. Quantifying impairments establishes baselines from which progress over time can be monitored.

Third, identify self-care procedures that immediately reduce the patient's MS and improve his or her AMC. This is the rehabilitation prescription. If an immediate improvement in MS and AMC can be achieved, this predicts an excellent response and long-term recovery.³

Fourth, regularly audit the patient's recovery in terms of disability and impairments. In other words, document the patient's progress with outcomes.

Progressing the Patient

The rehab process has four fundamental components: providing palliative (e.g., McKenzie) care; second, teaching tissue-sparing (e.g. ergonomic) strategies to help the patient avoid what harms them; third, training the patient in how to stabilize (e.g., quadruped exercises) his or her tissues; and fourth, functionally training (e.g., with squats/lunges) the patient in activities similar to his or her home, sport or occupational demands.

Patients are progressed through the above phases or components of care. There is often overlap, as a patient may get palliative relief from simple spine stability exercises, such as the quadruped leg reach. It is important to ensure that a "positive slope" - post-treatment reduction in MS - is achieved early in care with any exercises prescribed. Thus, we apply the McKenzie principle of pre- and post-treatment testing of the patient's MS to adjudicate the preferred exercise. Long, et al., have shown that if treatments are selected in this manner, the outcome is superior to either unmatched or even evidence-based generic care.⁴

Conclusion

The recent *Clinical Framework for the Delivery of Health Services to Injured Workers*, from Australia, outlines the modern benchmark for management of neuromusculoskeletal disorders.⁵ Evidence-based, outcome-based, functional, biopsychosocial, and self-care-oriented are the keystones of successful management. Prescribing self-care exercises in a functional, outcome-based way enhances motivation and is evidence-based.

References

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