Chapter One:
Physical Therapy and Disablement

Chapter Objectives
After reading this chapter, the student will be able to:
1. Describe how the definitions of health and disability have changed throughout history.
2. Define disablement.
3. Define terminology used in the International Classification of Functioning, Disability, and Health (ICF) and terminology used in the Nagi framework.
4. Differentiate between impairment, functional limitation, and disability.
Objectives Continued

5. Compare and contrast the ICF and the Nagi framework.
6. Identify the relationships between impairments, functional limitations, and disabilities.
7. Differentiate between activities of daily living (ADL) and instrumental activities of daily living (IADL).
8. Define documentation.
9. Describe the relationship between documentation and disablement.

Defining Health and Disability

- Health
  - Traditional definition
    - Free/absent from disease
    - Emphasis on treating or curing disease
    - Lack of consideration for how disease affects an individual's function in daily life/society

Defining Health and Disability

- Health
  - Current models take into consideration the relationship of...
Defining Health and Disability

- Health
  - Current models

DISABLEMENT

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Disablement

- The consequences of disease as it pertains to the relationship between body structures, ability to carry out tasks, and ability to function within society.

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Defining Health and Disability

- Health
  - Current models

DISABLEMENT

ICF

Nagi
ICF

- International Classification of Functioning, Disability, and Health
- Developed by the World Health Organization (WHO)
- Purpose:
  - To provide uniform, standard language for describing health and health-related states

International Classification of Functioning, Disability, and Health

ICF

- Integrates the biomedical, psychological, and social aspects of disease.
- Describes various aspects of health as they relate to:
  - The body
  - The individual
  - The society
ICF

- Categorizes health into:

  **Part 1**
  - Function and Disability

  **Part 2**
  - Contextual Factors

- Function and Disability
  - Body Functions and Structures
  - Activities and Participation

- Contextual Factors
  - Environmental Factors
    - Immediate
    - Distant
  - Personal Factors

The Nagi Framework

- Developed by Saad Nagi
- Developed in the 1960s

Nagi's Disablement Model

[Diagram of Nagi's Disablement Model]

Nagi's Disablement Model

[Diagram of Nagi's Disablement Model]
Pathology

- The interruption or interference with normal process, and simultaneous body efforts to heal itself or regain a normal state.

The Nagi Framework

Pathology

- Occurs at the following levels:
  - Cellular
  - Tissue
  - Organ
- Management focused on reducing active pathology

The Nagi Framework

Pathology

- Examples
  - Osteoporosis
  - Parkinson’s Disease
  - Fractures
- Can you think of some more examples?

Nagi's Disablement Model

Impairment

- Is a loss or abnormality of an anatomical, physiological, mental, or emotional nature
Impairment

- Deviations in normal anatomy and/or physiology
  - Physiological
  - Mental
  - Emotional
- Examples:
  - Limited range of motion
  - Muscle weakness
  - Impaired balance

Can you think of some more examples?

Nagi's Disablement Model

[Diagram of Nagi's Disablement Model]

Content under the diagram is not visible in the image.
Functional Limitations

- Abnormalities or limitations in an individual’s ability to carry out a meaningful action, task, or activity.

- Basic activities of daily living (ADLs)
  - Moving in and out of bed
  - Ambulating
  - Rising from a chair

- Instrumental activities of daily living (IADLs)
  - Community ambulation
  - Going to the grocery store

- Can you think of some more examples?
Disabilities

- Inabilities or limitations in performing socially defined roles and/or tasks that would normally be expected of an individual within a given culture or environment

Disabilities

- Roles or tasks that have been socially defined as normal for a given population
  - Self-care
  - Home management
  - Work
  - Community
  - Leisure
Disabilities

- Factors that influence an individual's perception of his or her degree of disability
  - The individual's situation and his or her reactions to the situation
  - The reactions of others:
    - Family
    - Friends
    - Associates
    - Co-workers
  - Environmental barriers that are present

Disabilities

- Example: 45-year-old male mechanic with shoulder impingement has pain when reaching overhead. This patient is unable to work due to his inability to reach overhead.

- Can you think of some more examples?
Nagi's Disablement Model

Physical Therapy and Disablement

- Disablement models provide framework for understanding relationships between
  - Disease
  - Impairments
  - Functional Limitations
  - Disability

Putting It All Together

- Physical Therapist Evaluation
  - Identifies impairments
  - Categorizes functional limitations
  - Provide information to better understand an individual's disability
  - Determine interventions appropriate to address impairments and functional limitations
Disablement & Documentation

- Appropriate documentation must reflect a disablement model.
- Show how a patient’s impairments relate to his or her functional limitations and degree of disability.
- Show that PT interventions are bringing about changes to impairment, function, and disability.

Documentation

- “Any entry into the patient-client record, such as a(n) consultation report, initial examination report, progress note, flow sheet/checklist, that identifies the care/service provided, re-examination, or summation of care.”
  (Redgate & Foto, 2003)

Review Questions

- How is a person’s “health” determined today as opposed to 3 decades ago?
- In your own words, describe disablement.
Review Questions

- Why is there a need for disablement models today?
- Why are they important to you?
- What are the 2 major disablement models today?

Review

For the following 2 slides, indicate which definition describes the terms pathology, impairment, functional limitation, disability, activity limitation, and participation restriction related to the ICF and the Nagi framework.

<table>
<thead>
<tr>
<th>ICF</th>
<th>Nagi</th>
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</thead>
<tbody>
<tr>
<td>A patient's medical diagnosis</td>
<td></td>
</tr>
<tr>
<td>Loss or abnormality of an individual's anatomy or physiology</td>
<td></td>
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<tr>
<td>Difficulties that are encountered when an individual attempts to complete a task</td>
<td></td>
</tr>
<tr>
<td>The ability to carry out a task is hindered or prevented due to a problem with the anatomy or physiology</td>
<td></td>
</tr>
<tr>
<td>ICF</td>
<td>Nagi</td>
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<tr>
<td>-----</td>
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</tr>
<tr>
<td>Problems an individual faces while involved in life situations</td>
<td></td>
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<tr>
<td>Encompasses impairments and limitations in abilities to carry out socially acceptable tasks</td>
<td></td>
</tr>
<tr>
<td>Unable to carry out a task that would be socially appropriate for an individual</td>
<td></td>
</tr>
</tbody>
</table>

Review Questions

- What is the difference between ADLs and IADLs?
- Give 3 examples of ADLs
- Give 3 examples of IADLs

Review Questions

- How are impairments, functional limitations, and disabilities related?
- What is the role of physical therapy documentation in describing disablement?
Application Exercises

In the following 2 slides determine whether the following is (are) pathology (P), impairment (I), functional limitation (FL), or disability (D) according to the Nagi framework.

Application Exercises

- Rotator cuff tendonitis
- Decreased sensation
- Impaired balance
- Cerebrovascular accident
- Inability to transfer out of bed

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Application Exercises

- Inability to drive without hand controls
- Inability to rise from a chair without assistance
- Below-knee amputation
- Limited gait distance
- Inability to work

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Application Exercises

- Which of these could be functional limitations and disabilities, depending on the patient?
  Explain why.
- Rotator cuff tendinitis
- Decreased sensation
- Impaired balance
- Cerebrovascular accident
- Inability to transfer out of bed
- Inability to drive without hand controls
- Inability to rise from a chair without assistance
- Below-knee amputation
- Limited gait distance
- Inability to work
Application Exercises

- Read the following scenarios and determine the patient’s functional limitations and disabilities.

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Application Exercises

You are working with a 70-year-old male who had a total hip replacement 3 weeks ago. He is now able to move in and out of the bed independently, transfer to a chair placed at the bedside, and ambulate 25' with a standard walker. He wants to return to driving, playing golf, and playing with his grandchildren.

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Application Exercises

You are working with a 10-year-old female in the school system. Her medical diagnosis (pathology) is cerebral palsy, spastic diplegia type. You have been working on ambulating up and down the stairs (which she can perform with min assist of 1 and a quad cane and handrail) and increasing the speed of her gait. At the present time, she leaves her classes early so that she can make it to the next one on time, and she uses the elevator rather than the stairs.
Application Exercises

Your patient is a 15-year old who sustained a traumatic, closed head injury in a motorcycle accident. He is confused and disoriented and he requires constant supervision for his safety. He can walk and get in and out of bed with supervision. He can also ascend and descend stairs with supervision.