



DISABLEMENT MODELS

Stephen Kareha, PT, DPT, OCS, ATC, CMP, CSCS

Objectives

- Understand the Nagi Model of Disablement
- Understand the ICF
- Understand purpose of G-codes

The Disablement Model

- Used to help classify patients

The Disablement Model

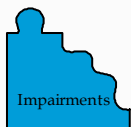
The typical way used to describe patients:



Pathology based diagnosis (ICDs)

The Disablement Model

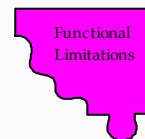
Problems resulting from this pathology:



loss or abnormality of physiological, anatomical, psychological structure or function at the organ or system level

Disablement Model

Problems related to pathology and impairments: restriction of ability to perform physical action, task, or activity in typically expected manner, as whole person



Disablement Model

Problems related to the pathology, impairments, and functional limitations:

inability to engage in specific role in particular social context and physical environment



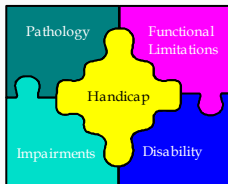
Disablement Model

Impact of society on the person with pathology, impairments, functional limitations, or disability:

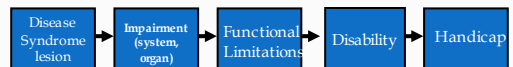


Disablement Model

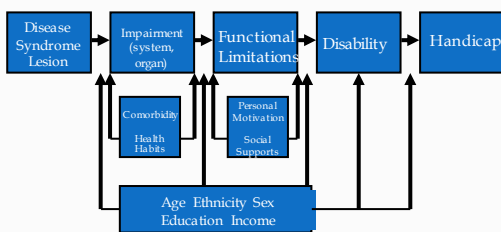
The complete picture of the patient



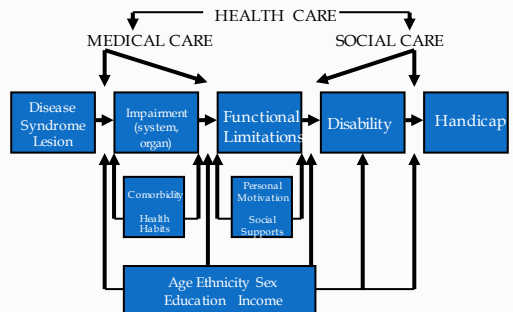
The Disablement Model

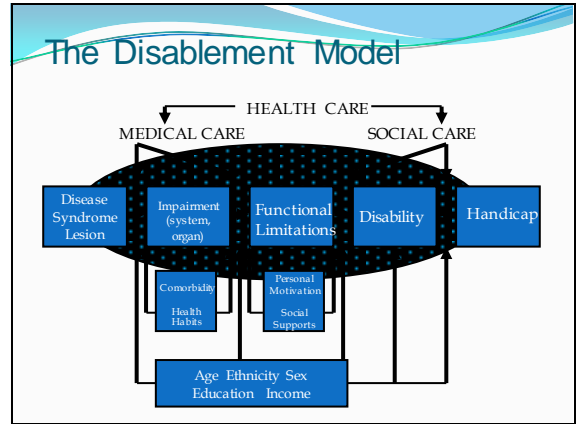
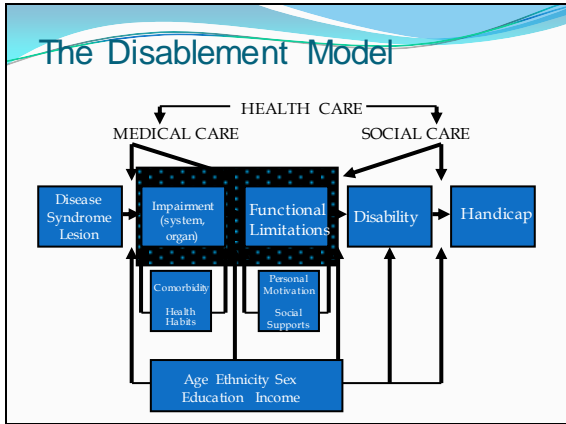


The Disablement Model



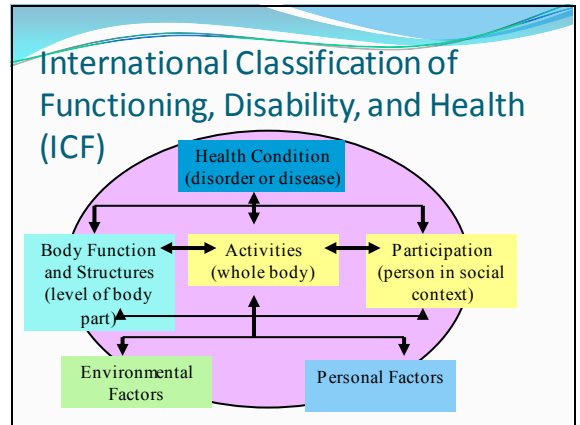
The Disablement Model





WHO Classification Systems

- International Classification of Functioning, Disability, and Health (ICF) - 2001
- "The ICF puts the notions of 'health' and 'disability' in a new light. It acknowledges that every human being can experience a decrement in health and thereby experience some degree of disability. Disability is not something that only happens to a minority of humanity. The ICF thus 'mainstreams' the experience of disability and recognises it as a universal human experience. By shifting the focus from cause to impact it places all health conditions on an equal footing allowing them to be compared using a common metric – the ruler of health and disability. Furthermore ICF takes into account the social aspects of disability and does not see disability only as a 'medical' or 'biological' dysfunction."



Relationship of Nagi model to ICF

NAGI/Disablement		ICF/Functioning
Active Pathology	⇒	Health Condition
Impairment	⇒	Body Functions and Structures
Functional Limitation	⇒	Activities and Participation
Disability		"biopsychosocial" construct

Jette AM. Towards a common language for function, disability, and health. *Phys Ther*. 2006;86(7):6-734

	Part 1: Functioning/Disability	
Components	Body Function/Structure	Activities/ Participation
Domains	Body Function/Structure	Life areas (tasks/actions)
Constructs	Changes in function (physio) Changes in structure (anatomy)	Capacity (standard environ) Performance (current environ)
Positive	Functional/structural integrity	Activities/ Participation
	Functioning	
Negative	Impairment	Activity limitation Participation restriction
	Disability	

Part 2: Contextual Factors		
Components	Environmental Factors	Personal Factors
Domains	External influences on function and disability	Internal influences on function and disability
Constructs	Facilitating/hindering aspects of features in the world (biopsych/soc)	Impact of attributes of the person
Positive	Facilitators	Facilitators
Negative	Barriers/hindrances	Barriers/hindrances

19

Definitions

- Body Functions are physiological functions of body systems (including psychological functions).
- Body Structures are anatomical parts of the body such as organs, limbs and their components.
- Impairments are problems in body function or structure such as a significant deviation or loss.

Definitions

- Activity is the execution of a task or action by an individual.
- Participation is involvement in a life situation.
- Activity Limitations are difficulties an individual may have in executing activities.
- Participation Restrictions are problems an individual may experience in involvement in life situations.

Definitions

- Environmental Factors make up the physical, social and attitudinal environment in which people live and conduct their lives.

Qualifiers

- Performance
 - Describes what an individual does in his or her current environment.
 - "The lived experience" of people in their actual context.
 - The 'current environment' will be understood to include assistive devices or personal assistance, whenever the individual actually uses them to perform actions or tasks.)

Qualifiers

- Capacity
 - Describes an individual's ability to execute a task or an action.
 - Indicates the highest probable level of functioning of a person in a given domain at a given moment.
 - Need to have a "standardized environment" to neutralize the varying impact of different environments on the ability of the individual
 - Assumes a 'naked person' assessment, that is, the person's capacity without personal assistance or the use of assistive devices
 - This environmental adjustment has to be the same for all persons in all countries

Examples

HEALTH CONDITION	IMPAIRMENT	ACTIVITY LIMITATION	PARTICIPATION RESTRICTION
Leprosy	Loss of sensation of extremities	Difficulties in grasping objects	Stigma of leprosy leads to unemployment
Post: Disorder	Anxiety	Not capable of going out alone	People's reactions leads to no social relationships
Spinal injury	Paralysis	Incapable of using public transportation	Lack of accommodations in public transportation leads to no participation in religious activities
Juvenile diabetes	Insulinetic dysfunction	None (impairment controlled by medication)	Does not go to school because of stereotypes about disease
Vitiligo	Facial disfigurement	None	No participation in social relations owing to fears of criticism
People who formerly had a mental health problem and were treated for a psychiatric disorder	None	None	Delayed employment because of employer's prejudice

Responses to various ICF levels

HEALTH CONDITION	Intervention	Prevention
	Medical treatment/care Medication	Health promotion Nutrition Immunization
IMPAIRMENT	Medical treatment/care Medication Surgery	Prevention of further development of activity limitations
ACTIVITY LIMITATION	Assistive devices Personal assistance Rehabilitation therapy	Preventive rehabilitation Prevention of the development of participation restrictions
PARTICIPATION RESTRICTION	Accommodations Public education Anti-discrimination law Universal design	Environmental change Employment strategies Accessible services Universal design Lobbying for change

Clinical application

INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY, AND HEALTH

PRIMARY ICF CODES

Neck Pain With Mobility Deficits

Body functions	b7301	Mobility of several joints
Body structure	s76000	Cervical vertebral column
Activities and participation	d4208	Changing a basic body position, specified as moving the head and neck while looking to the left or to the right

Neck Pain With Headaches

Body functions	b28030	Pain in head and neck
Body structure	s7203	Joints of head and neck region
	s7204	Muscles of head and neck region
Activities and participation	d4158	Maintaining a body position, specified as maintaining the head in a flexed position, such as when reading a book; or, maintaining the head in an extended position, such as when looking up at a video monitor

Neck Pain With Movement Coordination Impairments

Body functions	b7603	Control of complex voluntary movements
Body structure	s7205	Ligaments and fascia of head and neck region
Activities and participation	d4158	Maintaining a body position, specified as maintaining alignment of the head, neck, and thorax such that the cervical vertebral segments function in a neutral, or mid-range, position

Neck Pain With Radiating Pain

Body functions	b2804	Radiating pain in a segment or region
Body structure	s1201	Spinal nerves
Activities and participation	d4452	Reaching

Resources

- www.apta.org/ICF