Cognitive Changes in Older Adults, Part 2: The ICF

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Session Type: Educational Sessions
Session Level: Intermediate Level

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Cognitive Changes in Older Adults, Part 2: The ICF
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Disclosure

- The presenter has no financial arrangements or conflicts of interest

Session Description

- Part 2 of a 2-part session. A brief review of typical age-related pathological cognitive changes will be provided. The presenter will introduce the International Classification of Function, Disability and Health (ICF) and apply the ICF to effective patient management and documentation. Home health physical therapists who work with older adults will encounter memory issues, both typical of normal aging and pathological. The presenter will build on concepts presented in Part 1 for the management of behaviors associated with dementia, and strategies to maximize benefits from PT. This session will also focus on the ICF, ICD-10, and documentation to justify physical therapy care for these individuals.
Session Learning Objectives

1. Differentiate between typical age-related and pathological cognitive changes in older adults.
2. Identify common pathological cognitive changes in older adults.
3. Differentiate among previous disablement models and the ICF.
4. Apply the ICF and the ICD-10 for the purposes of intervention and documentation to patient cases of older adults with various conditions in addition to cognitive dysfunction.

NORMAL AGE-RELATED COGNITIVE CHANGES

- Physiological
  - Overall decrease in brain size and weight
  - General slowing of electrical activity in brain
  - Changes in regional blood flow
  - Some changes in neurons/dendrites
  - Functional impact
    - Motor coordination/falls
    - Cognitive functioning

NORMAL CHANGES
NORMAL CHANGES (cont’d)

• Deficits in integrative behavior
• Difficulty performing under stress/managing stress
• Decreased STM – “recognition memory”
• Changes in processing information

TAKE HOME MESSAGE: DEMENTIA IS NOT A PART OF NORMAL AGING!!

PATHOLOGICAL COGNITIVE CHANGES IN AGING

• Delerium
• Mild Cognitive Impairment
• Dementia
  – Most common
    • Alzheimer’s disease
    • Multi-infarct dementia
  – Other age-related
    • Fronto-temporal dementia
### PATHOLOGICAL CHANGES

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>DELIRIUM</th>
<th>MCI</th>
<th>DEMENTIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONSET</td>
<td>Rapid/acute</td>
<td>Variable</td>
<td>Generally slow</td>
</tr>
<tr>
<td>CAUSE</td>
<td>Disruption of homeostasis</td>
<td>Meds, depression, brain changes</td>
<td>Variable brain changes</td>
</tr>
<tr>
<td>REVERSIBLE</td>
<td>Generally yes</td>
<td>Possibly</td>
<td>Generally no</td>
</tr>
<tr>
<td>MEMORY</td>
<td>Impaired</td>
<td>Impaired</td>
<td>Impaired</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>Impaired</td>
<td>Normal</td>
<td>Impaired</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>Impaired</td>
<td>Normal</td>
<td>Impaired</td>
</tr>
</tbody>
</table>

MCI = Mild Cognitive Impairment

### PATHOLOGICAL CHANGES

<table>
<thead>
<tr>
<th>MCNS</th>
<th>pAD</th>
<th>MID/VaD</th>
<th>FTD</th>
<th>NPH</th>
<th>DLB</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>&gt;65 y/o</td>
<td>&gt;60/65 y/o</td>
<td>45-60 y/o</td>
<td>Any, &gt; 60</td>
<td>Any, &gt; 60</td>
</tr>
<tr>
<td>MEMORY</td>
<td>Recent, then remote</td>
<td>Recent and remote</td>
<td>Recent and remote</td>
<td>Mild, recent, early Dz</td>
<td>Recent/remote</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>Mild early, severe late</td>
<td>Possibly</td>
<td>Early Dz</td>
<td>Minimal, if any</td>
<td>Early Dz</td>
</tr>
<tr>
<td>BEHAVIOR</td>
<td>Late Dz</td>
<td>Possibly</td>
<td>Early Dz</td>
<td>Minimal</td>
<td>Yes</td>
</tr>
<tr>
<td>MOTOR</td>
<td>Late Dz</td>
<td>Early Dz, focal</td>
<td>Early Dz</td>
<td>Early Dz</td>
<td>Early Dz</td>
</tr>
<tr>
<td>PSYCH</td>
<td>Late Dz</td>
<td>Possibly</td>
<td>No</td>
<td>No</td>
<td>Early Dz</td>
</tr>
<tr>
<td>PROGRESSION</td>
<td>Predictable</td>
<td>Step-wise</td>
<td>&gt; pAD</td>
<td>Unpredictable</td>
<td>Unpredictable</td>
</tr>
<tr>
<td>TREATMENT</td>
<td>None</td>
<td>Anti-coag</td>
<td>None</td>
<td>Shunt</td>
<td>None</td>
</tr>
</tbody>
</table>

pAD=probable Alzheimer’s Disease; MID/VaD=Multi-infarct/vascular dementia; FTD=Frontotemporal dementia; NPH=Normal pressure hydrocephalus; DLB=Dementia Lewy body-type; Dz=Disease

### PHYSICAL THERAPY

- Delirium
  - Likely hold PT until cause of delirium determined and treated
- Dementias
  - Treat motor impairments as indicated
  - Focus on function
  - Use repetition
  - Manage behaviors
  - Educate family
PHYSICAL THERAPY (cont’d.)

- Managing behaviors
  - DON’T ARGUE/DEBATE
    - You will lose!
  - Reality orientation vs. validation
  - Allow sense of control when possible
  - Be creative
    - Music
    - Dolls
    - Books...
  - BE FLEXIBLE!!

INTERNATIONAL CLASSIFICATION OF FUNCTION, DISABILITY AND HEALTH (ICF)

CONCEPTUALIZATION OF FUNCTION AND DISABILITY
CONCEPTUALIZATION OF FUNCTION AND DISABILITY

• Medical model – one end of the spectrum…
  – Disability as a personal problem
  – Disease, trauma, other health condition
  – Cure or individual adjustment
  – Political: Health care policy issue

CONCEPTUALIZATION OF FUNCTION AND DISABILITY

• Social model – the other end…
  – Disability as a socially-created problem
  – Full integration of individuals into society
  – Social change
  – Political: human rights issue

NAGI MODEL

• Developed by Saad Nagi in 1960’s in response to medical model
• Biopsychosocial model
• Defined concepts of:
  – Active Pathology
  – Impairment
  – Functional limitation
  – Disability
• Endorsed by APTA in original editions of APTA’S The Guide to Physical Therapist Practice, 2001
NAGI MODEL (cont’d.)

ACTIVE PATHOLOGY
• Medical Diagnosis
• Occurs at cellular level

IMPAIRMENT
• Abnormality of structure or function
• Occurs at level of organ or structure

FUNCTIONAL LIMITATION
• Impairment of ability to perform task
• Occurs at level of whole person

DISABILITY
• Limitation or inability to perform expected or desired roles
• Occurs at level of "society"

NAGI MODEL (cont’d.)

• Example

STROKE  HEMI-PARESIS  DIFFICULTY MANIPULATING OBJECTS  UNABLE TO CONTINUE TO WORK AS CARPENTER

ICIDH MODEL

• International Classification of Impairment, Disability and Handicap (ICIDH) – Developed by WHO in 1980’s

DISEASE  IMPAIRMENT  DISABILITY  HANDICAP
INTERNATIONAL CLASSIFICATION OF FUNCTION, DISABILITY AND HEALTH (ICF)

ICF – OVERVIEW

• Developed by World Health Organization
• Released in 2001
• Endorsed by APTA in most recent edition of APTA’s The Guide to Physical Therapist Practice
  – Online access
• Related to ICD-10 and ICD-11

ICF – OVERVIEW (cont’d.)

• Developed in response to concerns raised re: ICIDH
  – Conceptual
    • Multiple
  – Taxonomic
    • Poorly organized, unclear
  – Practical
    • Terminology very technical
    • Limited cross-cultural applicability
ICF – OVERVIEW (cont’d.)
• Problems with ICIDH
  – Conceptual
    • Linear and causal relationship among categories
    • Places consequences of health condition on the individual
      – Stigma of “handicap”
    • Lacked lifespan perspective
      – Children
      – Older adults

ICF – OVERVIEW (cont’d.)
• Purpose of ICF
  – Scientific basis for understanding of and studying of the functional states associated with health conditions
  – Common language between health care providers and people with disabilities
  – Data comparison
  – Coding scheme

ICF AS A TOOL
• Statistical
• Research
• Clinical
• Social policy
• Educational
ICF – MODIFICATIONS

• Conceptual
  – “Impairments, Disabilities and Handicaps” re-framed as “Body Structure and Function, Activities, and Participation”
  – Assumed to have dynamic, not linear, relationship
    • Interaction among the classifications to define consequences of health conditions

ICF – MODIFICATIONS (cont’d.)

• Conceptual (cont’d.)
  – Classification of both disability and health
  – Covers characteristics, rather than diagnoses or disorders
  – Expanded to cover congenital and childhood disabilities

ICF – MODIFICATIONS (cont’d.)

• Taxonomic
  – 4-point scale utilized to reflect extent of impairment, limitation or restriction of various dimensions
  – Second qualifier may be used to describe contribution of assistance by devices or people
    • Consider documenting twice, with and without assistive device/assistance
ICF – MODIFICATIONS (cont’d.)

• Practical
  – Arranged hierarchically
  – Information more clearly organized

“FUNCTIONING AND DISABILITY” THREE DIMENSIONS

• Body level
  – Body structures and functions
• Individual level
  – Activities
• Societal level
  – Participation

CURRENT UNDERSTANDING OF THE INTERACTION BETWEEN FUNCTION AND DISABILITY

Health Condition

Body Structure & Function --> Activity --> Participation

Environmental Factors

Personal Factors
BODY LEVEL

• Body structures: anatomical parts

• Body Functions: physiological or psychological

• Impairments: significant deviation or loss

BODY STRUCTURE AND FUNCTION

- Nervous system
- Eye, ear and related structures
- Voice and speech
- Cardiovascular, immunological and respiratory systems
- Digestive, metabolic, endocrine
- Genitourinary
- Structures related to movement
- Skin and related structures

- Mental Function
- Sensory Function
- Voice and Speech
- Cardiovascular, hematological, immunological and respiratory
- Digestive, metabolic, endocrine
- Genitourinary
- Neuromusculoskeletal and movement related
- Skin and related structures

IMPAIRMENT

• DEFINITION:
  - Anomaly, defect, loss, deviation in body structure
  - Congruent with changes at the tissue, cellular, sub-cellular, molecular level
  - Manifestations of pathology
  - Generally accepted population standards in body structure and function

• CHARACTERISTICS:
  - Temporary or permanent
  - Progressive, regressive, static
  - Intermittent or continuous
  - Slight or severe, may fluctuate over time
IMPAIRMENT

• Not contingent on etiology, how state developed
• Presence implies a cause
• Cause may insufficient to explain
• Not necessarily indicate disease present
• Broader and more inclusive than disorders, diseases
• May result in other impairments
  – “Secondary impairments”

ACTIVITY/ACTIVITY LIMITATIONS

• DEFINITION
  – Activity: Performance of a task or action
  – Activity Limitation: Difficulty an individual may have in the performance of activities

• CHARACTERISTICS
  – Associated with all aspects of human life
  – Integrated use of body functions
  – Actual performance of a functional task
  – Limitation with a qualitative or quantitative alteration in individual performance
  – Clinical assessments, functional tests, questionnaires, self-evaluations

ACTIVITIES

• Activities of applying knowledge
  – thinking
  – problem solving
  – decision making
• Communication activities
• Movement activities:
  – body position
    • maintaining a body position
    • changing a body position
    • transferring
    • Lifting, carrying and manipulating objects
PARTICIPATION

• May be partial overlap with activities:
  – Communication
  – Mobility
  – Self-Care
  – Domestic Life

PARTICIPATION/PARTICIPATION
RESTRICTIONS

• DEFINITION
  – Individuals involvement in life situations in relation to health condition, body functions, and structure activities and contextual factors
  – Restrictions: problems in the manner or extent of involvement in life situations
    • Inclusion
    • Acceptance
    • Access to resources
    • Satisfaction
    • Fulfillment
    • Enjoyment

• CHARACTERISTICS
  – Degree of involvement and society’s response
  – Includes environmental factors
  – Relationship between health, personal factors and external factors
  – Society may inhibit or facilitate participation

PARTICIPATION

• May be partial overlap with activities:
  – Communication
  – Mobility
  – Self-Care
  – Domestic Life
PARTICIPATION

• Other areas of participation:
  – Interpersonal interactions
  – Major Life Areas
  – Community, Social and Civic Life

COMPARISON OF MODELS

<table>
<thead>
<tr>
<th>NAGI</th>
<th>ICIDH/WHO</th>
<th>ICF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Pathology</td>
<td>Disease</td>
<td>Health Condition</td>
</tr>
<tr>
<td>Impairment</td>
<td>Impairment</td>
<td>Impairment</td>
</tr>
<tr>
<td>Functional Limitation</td>
<td>Disability</td>
<td>Activity Limitation</td>
</tr>
<tr>
<td>Disability</td>
<td>Handicap</td>
<td>Participation Restriction</td>
</tr>
</tbody>
</table>

CURRENT UNDERSTANDING OF THE INTERACTION BETWEEN FUNCTION AND DISABILITY

Health Condition
  (Disorder or Disease)

Body Structure & Function

Activity

Participation

Environmental Factors

Personal Factors
CONTEXTUAL FACTORS

• Complete background of individual life and living
• Environmental factors
  – Physical
  – Social
  – Attitudinal
• Personal Factors: individual background of health and living

ENVIRONMENTAL FACTORS

• Individual
  – Immediate personal
  – Home, workplace, school
  – Physical and material features
  – Direct contact with others

ENVIRONMENTAL FACTORS

• Social/Attitudinal
  – Services
    • Formal, informal social structures
    • Community and local settings
    • Government agencies, communication transportation services
  – Systems
    • Culture or subculture
    • Laws, regulations, formal rules
    • Informal rules, attitudes and ideologies
PERSONAL FACTORS

- Age
- Race
- Gender
- Education
- Experiences
- Personality
- Character style
- Aptitudes
- Other health conditions
- Fitness
- Social Background

TAXONOMY/CODING

- Sections
  - Body functions
  - Body structures
  - Activity and Participation
  - Environment

TAXONOMY/CODING (cont’d.)

- Each section divided into chapters
  - Common categories
  - Specific items
  - Arranged hierarchically
  - 1 to 4 levels
    - Can choose level of refinement
    - Identified via combination of letters and numerals
TAXONOMY/CODING (cont’d.)

• Section coding
  – Body functions
    • Designated by (b)
  – Body structures
    • Designated by (s)
  – Activity and participation
    • Designated by (d)
  – Environment
    • Designated by (e)

TAXONOMY/CODING (cont’d.)

• Section code followed by
  – 1 numeral to designate chapter code
  – Up to 3 more numerals to further refine chapter code

TAXONOMY/CODING (cont’d.)

• Chapter code MAY be followed by
  – Decimal point
  – Additional numerals to indicate severity of impairment, activity limitation, participation restriction
    • Severity indicated by 4-point scale
      – 1  – mild
      – 2  – moderate
      – 3  – severe
      – 4  – complete
TAXONOMY/CODING (cont’d.)

• Chapter code MAY be followed by (cont’d.)
  – Environmental impact
    • Facilitory
    • Inhibitory

AAARRRRRRGH!!!

It’s not that bad…
ICF AND DEMENTIA

ICF AND DEMENTIA
CORE SET

• ICF Core sets established for certain health conditions to facilitate use
• Attempt to include fewest domains to be practical
• Attempt to be comprehensive enough to avoid exclusion of important factors

ICF AND DEMENTIA
CORE SET

• ICF Research Branch:
ICF AND DEMENTIA: APPLICATION

Short List of Body Functions

b1: MENTAL FUNCTIONS
b110 Consciousness
b114 Orientation (time, place, person)
b117 Intellectual (incl. Retardation, dementia)
b130 Energy and drive functions
b134 Sleep
b140 Attention
b144 Memory
b152 Emotional functions
b156 Perceptual functions
b164 Higher level cognitive functions
b167 Language

(copied from ICF Checklist – see reference list for URL)

ICF APPLICATION

PART 1a: IMPAIRMENTS of BODY FUNCTIONS

Body functions are the physiological functions of body systems (including psychological functions).
Impairments are problems in body function as a significant deviation or loss.

First Qualifier: Extent of impairments

0 No impairment means the person has no problem
1 Mild impairment means a problem that is present less than 25% of the time, with an intensity a person can tolerate and which happens rarely over the last 30 days.
2 Moderate impairment means that a problem that is present less than 50% of the time, with an intensity which is interfering in the persons day to day life and which happens occasionally over the last 30 days.
3 Severe impairment means that a problem that is present more than 50% of the time, with an intensity, which is partially disrupting the persons day to day life and which happens frequently over the last 30 days.
4 Complete impairment means that a problem that is present more than 95% of the time, with an intensity which is totally disrupting the persons day to day life and which happens every day over the last 30 days.
5 Not specified means there is insufficient information to specify the severity of the impairment.
6 Not applicable means it is inappropriate to apply a particular code (e.g. b650 Menstruation functions for woman in pre-menarche or post-menopause age).

(copied from ICF Checklist – see reference list for URL)
ICF APPLICATION

- Part 1 b: IMPAIRMENTS of BODY STRUCTURES
  - Body structures are anatomical parts of the body such as organs, limbs and their components.
  - Impairments are problems in structure as a significant deviation or loss.

ICF APPLICATION

First Qualifier: Extent of impairment

0 No impairment means the person has no problem
1 Mild impairment means a problem that is present less than 25% of the time, with an intensity a person can tolerate and which happens rarely over the last 30 days.
2 Moderate impairment means that a problem is present less than 50% of the time, with an intensity, which is interfering in the persons day to day life and which happens occasionally over the last 30 days.
3 Severe impairment means that a problem is present more than 50% of the time, with an intensity, which is partially disrupting the persons day to day life and which happens frequently over the last 30 days.
4 Complete impairment means that a problem is present more than 95% of the time, with an intensity, which is totally disrupting the persons day to day life and which happens almost daily.
8 Not specified means there is insufficient information to specify the severity of the impairment.
9 Not applicable means it is inappropriate to apply a particular code (e.g. b650 Menstruation functions for woman in pre-menarche or post-menopause age).

ICF APPLICATION

Second Qualifier: Nature of the change

0 No change in structure
1 Total absence
2 Partial absence
3 Additional part
4 Aberrant dimensions
5 Discontinuity
6 Deviating position
7 Qualitative changes in structure, including accumulation of fluid
8 Not specified
9 Not applicable
ICF APPLICATION

Short List of Body Structures

<table>
<thead>
<tr>
<th>First Qualifier: Extent of Impairment</th>
<th>Second Qualifier: Nature of the Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>PART 2: ACTIVITY LIMITATIONS &amp; PARTICIPATION RESTRICTION</td>
<td></td>
</tr>
</tbody>
</table>

- Activity is the execution of a task or action by an individual.
- Activity limitations are difficulties an individual may have in executing activities.
- Participation is involvement in a life situation.
- Participation restrictions are problems an individual may have in involvement in life situations.
ICF APPLICATION

The Performance qualifier indicates the extent of Participation restriction by describing the persons actual performance of a task or action in his or her current environment. Because the current environment brings in the societal context, performance can also be understood as "involvement in a life situation" or "the lived experience" of people in the actual context in which they live. This context includes the environmental factors — all aspects of the physical, social and attitudinal world that can be coded using the Environmental. The Performance qualifier measures the difficulty the respondent experiences in doing things, assuming that they want to do them.

ICF APPLICATION

• PERFORMANCE QUALIFIER
  – Participation/Participation restrictions
  – What the person actually does or is able to do in his/her own environment
    • Environment includes physical, social, attitudinal, etc.
  – Assumes person wants to participate

ICF APPLICATION

The Capacity qualifier indicates the extent of Activity limitation by describing the person ability to execute a task or an action. The Capacity qualifier focuses on limitations that are inherent or intrinsic features of the person themselves. These limitations should be direct manifestations of the respondent’s health state, without the assistance. By assistance we mean the help of another person, or assistance provided by an adapted or specially designed tool or vehicle, or any form of environmental modification to a room, home, workplace etc.. The level of capacity should be judged relative to that normally expected of the person, or the person’s capacity before they acquired their health condition.
ICF APPLICATION

- CAPACITY QUALIFIER
  - Activity/Activity limitation
  - Indicates the person's ability to perform task without assistance
  - Compared to typically expected capacity, or person's ability to complete task previously

First Qualifier: Performance

1. No difficulty means the person has no problem
2. Mild difficulty means a problem that is present less than 25% of the time, with an intensity a person can tolerate and which happens rarely over the last 30 days.
3. Moderate difficulty means a problem that is present less than 50% of the time, with an intensity which is interfering in the persons day to day life and which happens occasionally over the last 30 days.
4. Severe difficulty means a problem that is present more than 50% of the time, with an intensity, which is partially disrupting the persons day to day life and which happens frequently over the last 30 days.
5. Complete difficulty means a problem that is present more than 95% of the time, with an intensity, which is totally disrupting the persons day to day life and which happens every day over the last 30 days.
6. Not specified means there is insufficient information to specify the severity of the difficulty.
7. Not applicable means it is inappropriate to apply a particular code (e.g. b650 Menstruation functions for women in pre-menarche or post-menopause age).

Second Qualifier: Capacity (without assistance)

ICF APPLICATION

Short List of A&P domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Performance Qualifier</th>
<th>Capacity Qualifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>d4. MOBILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d430 Lifting and carrying objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d440 Fine hand use (picking up, grasping)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d450 Walking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d465 Moving around using equipment (wheelchair, skates, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d470 Using transportation (car, bus, train, plane, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d475 Driving (riding bicycle and motorbike, driving car, etc.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(copied from ICF Checklist – see reference list for URL)
ICF APPLICATION

• PART 3: ENVIRONMENTAL FACTORS

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

Qualifier in environment: Barriers or facilitator

<table>
<thead>
<tr>
<th>0 No barriers</th>
<th>0 No facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mild barriers</td>
<td>+1 Mild facilitator</td>
</tr>
<tr>
<td>2 Moderate barriers</td>
<td>+2 Moderate facilitator</td>
</tr>
<tr>
<td>3 Severe barriers</td>
<td>+3 Substantial facilitator</td>
</tr>
<tr>
<td>4 Complete barriers</td>
<td>+4 Complete facilitator</td>
</tr>
</tbody>
</table>
### Short List of Environment

#### E4. ATTITUDES
- **e410** Individual attitudes of immediate family members
- **e420** Individual attitudes of friends
- **e440** Individual attitudes of personal care providers and personal assistants
- **e450** Individual attitudes of health professionals
- **e455** Individual attitudes of health-related professionals
- **e460** Societal attitudes
- **e465** Social norms, practices and ideologies

*(copied from ICF Checklist – see reference list for URL)*

### Short List of Environment

#### E5. SERVICES, SYSTEMS AND POLICIES
- **e525** Housing services, systems and policies
- **e535** Communication services, systems and policies
- **e540** Transportation services, systems and policies
- **e550** Legal services, systems and policies
- **e570** Social security services, systems and policies
- **e575** General social support services, systems and policies
- **e580** Health services, systems and policies
- **e585** Education and training services, systems and policies
- **e590** Labour and employment services, systems and policies

*(copied from ICF Checklist – see reference list for URL)*

### EXAMPLE
ICF APPLICATION

Part 4: OTHER CONTEXTUAL INFORMATION

4.1 Give a thumbnail sketch of the individual and any other relevant information.
(provide narrative)

4.2 Include any Personal Factors as they impact on functioning (e.g. lifestyle, habits, social background, education, life events, race/ethnicity, sexual orientation and assets of the individual).
(provide narrative)

APPLICATION OF THE ICF TO INDIVIDUALS WITH DEMENTIA

ICF AND DEMENTIA

• Muo et al (2005) applied ICF to health condition of pAD
  – ICF previously applied to other Dx; first to apply to pAD
  – Classified 26 patients at Alzheimer’s Dz rehabilitation facility using ICF
    • Dx of pAD using NINCDS-ADRDA criteria
    • Cognition assessed with MMSE
    • Stage of dementia determined by Global Dementia Scale (GDS)
ICF AND DEMENTIA (cont’d.)

• Muo et al (2005) – cont’d.
  – Results
    • ICF identified impairments and limitations across all domains
    • Only mental functions were impaired across all subjects
    • Other body functions (urinary, perceptual, intestinal) not significantly affected until later in disease process
      – However, slight changes in functions noted to begin in early pAD
        » Dysphagia - late
        » Oral motor changes - early

ICF AND DEMENTIA (cont’d.)

• Muo et al (2005) – cont’d.
  – Results
    • Activities and participation were impacted by the disease
      – Mobility, self care, domestic life, communication/interactions/relationship
    • Facilitators
      – Products/technology
      – Support/relationships/services
      – Systems/policies

ICF AND DEMENTIA (cont’d.)

• Muo et al (2005) – cont’d.
  – Results
    • Found that “typical” assessment of individuals with pAD addresses many ADL/IADL issues
    • ICF assessment “catches” 2 areas not addressed in typical assessment of ADL/IADL
      – Communication
        » For instance, ICF captures different aspects than a typical speech evaluation
        » Interpersonal interaction/relationship
ICF AND DEMENTIA (cont’d.)

• Muo et al (2005) – cont’d.
  – Results
    • ICF can be used successfully to classify the impact of the health condition of pAD
    • Scores change within and among domains based on stage of disease
    • Successfully identifies life issues that are typically missed

ICF AND DEMENTIA (cont’d.)

• Other studies utilizing ICF in dementia care
  – Matching individuals with dementia with assistive technology (Scherer et al, 2012; Pino et al, 2013)
INTERNATIONAL CLASSIFICATION OF DISEASES -10

ICD-10

• Coding of health conditions
• May incorporate ICF coding
  – Body structure (s) or body function (b)
  – Activities and Participation (d)
    • Modifiers for
      – Performance (participation restriction)
      – Capacity (activity limitation)

ICD-10 (cont’d.)

• Activities and Participation
  – Performance and Capacity may be coded twice
    • With assistance (device or person)
    • Without assistance

**Thus, may show difference with an intervention to justify**
ICD-10 (cont’d.)


ICD-10 (cont’d.)


ICD-10 (cont’d.)

EXAMPLES

POINTS TO PONDER

• Do I have to use this WHOOOOOLE thing?!
• Do I HAVE to use the coding system?
• What good is this in my day-to-day clinical practice?
  – Or, more to the point, is this MORE documentation that I’m gonna have to do?!!
• Will this impact reimbursement?
PATIENT PROBLEMS

SUMMARY
• Cognitive changes tend to occur with aging
• While some cognitive changes are normal, others are not
• Delirium is an acute cognitive change that is generally reversible once the cause has been identified.
• MCI is a form of cognitive change that is more than typical, but not enough to meet the criteria for dementia

SUMMARY (cont’d.)
• MCI sometimes reverses itself temporarily or permanently
• Moderate exercise appears to have a protective effect against dementia
• Cognitive status may be improved through exercise
• Individuals with dementia demonstrate improvement in various functional and some life domains with physical therapy/rehab
  – Gains greatest with those with mild to moderate dementia
SUMMARY (cont’d.)

• The ICF was released by the WHO in 2001 in an attempt to generate a common language of and a new understanding of disablement
• The ICF considers both health and health conditions, abilities and limitations
• This new model provides a lifetime, cross-cultural framework for health conditions

SUMMARY (cont’d.)

• The ICF can be used to classify the impact of the health condition of pAD on an individual
• The ICF can be successfully utilized for research with the population of individuals with dementia
• A Core Set of domains related to dementia will likely facilitate the implementation of the ICF for use with this population

QUESTIONS?
CSM-2015 PRECONFERENCE

Future Thinking. Using the International Classification of Functioning, Disability and Health (ICF) to Define and Defend Appropriate Care Provision

- Thank you:
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THANK YOU VERY MUCH!!

REFERENCES

- Alzheimer’s.net. www.alzheimer’s.net (accessed multiple times).
REFERENCES (cont’d.)


REFERENCES (cont’d.)


REFERENCES (cont’d.)

• Toussant EM, Kohia M. Review of literature regarding the effectiveness of physical therapy after hip fracture in elderly persons. J Gerontol: MED SCI. 2005;60A:1285-1291.

FORMS AND DOWNLOADS

- ICF CHECKLIST:
  - http://www.who.int/classifications/icf/training/icfchecklist.pdf

- BEERS LIST:
  - https://www.dcri.org/trial-participation/the-beers-list

- GUIDELINES ON DEMENTIA:
  - https://provider.ghc.org/all-sites/guidelines/dementia.pdf

- FUNCTIONAL ACTIVITIES QUESTIONNAIRE:
  - https://search.ghc.org/vis/cgi-bin/query-meta which provides link to:
    - https://provider.ghc.org/open/caringForOurMembers/patientHealthEducation/screeningSchedules/dementiaQuestionnaire.pdf

- GERIATRIC TOOL KIT:
  - http://geriatrictoolkit.missouri.edu/cog/