Introduction to ICF

A critical introduction to the International Classification of Functioning, Disability and Health

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january 2009

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Summary:

The International Classification of Functioning, Disability and Health (ICF) is presented here in detail, including its coding techniques. The reading should enable a lay reader to understand the genesis and formal construction of the ICF, as well as its use in a wide range of clinical situations and studies. Like all WHO tools, ICF is subject to periodic revision, and we examine here, on the basis of a relatively extensive review of the international literature, the main problems raised by its use, in the hope of assisting this process, which is much needed for a tool of great ambition, but whose detailed analysis shows major conceptual flaws.

1. From CIDHI to ICF, a cultural, community and political evolution

The International Classification of Impairments, Disabilities and Handicaps (ICIDH), published in 1980, was a static and descriptive classification tool for the reality encountered by caregivers [1,2]
Reflecting the dominant medical model, it linked etiology, pathology and its manifestations in a linear, static fashion. This approach is illustrated in the following figure:

IACHR model						
Disease or disorder	⇨	impairment	⇨	disability	⇨	disability

Table 1 1980 IACHR model

The CIDHI brought together three classifications:

1. **Classification of Impairments** (alphanum I for Impairments)
   Loss or abnormality of a psychological, physiological, anatomical structure or sensitive function 1 Intellectual impairment/ 2 Psychological other/ 3 Language/ 4 Hearing/ 5 Ocular/ 6 Visceral/ 7 Skeletal/ 8 Facial/ 9

generalized, sensory or other Ex :

- I41: profound hearing loss
- I63: urinary system deficiency
- I63.6: stress incontinence
- I81: nose deformity

2. **Classification des Incapacités** (alphanum D for Disabilities)
   Restriction or lack of ability (resulting from an impairment) to perform a function in the manner or within the standards usual for a human being 1 Behavioral / 2 Communication / 3 Personal care / 4 Locomotor / 5 Body use / 6 Dexterity / 7 Situational / 8 Special qualification / 9 Other activity restrictions
   Ex :
   - D35: difficulty dressing
   - D44: inability to run
   - D50.2: inability to open a box
   - D70.2 : pacemaker dependent

3. **Classification des Handicaps** (alphanum H for Handicaps)
   A handicap is a disadvantage for a given individual, resulting from an impairment or disability that limits or prevents the performance of a role (according to age, gender or culture) normal for that individual 1 orientation handicap / 2 physical independence / 3 mobility / 4 occupation / 5 social integration / 6 economic self-sufficiency / 7 other handicaps (quantification scale)
   Ex :
   - H30: completely mobile
   - H33: reduced mobility
   - H58: socially isolated
   - H66 : poor

The use of ICIDH concepts has led to more rational management of chronic diseases and their consequences. However, concerns have been expressed that the ICIDH does not give sufficient prominence to factors in the social and physical environment in the development of the disabling process, and that there is a danger that it will encourage the "medicalization of disability".
In the years that followed, the research movement in this field grew considerably. The question of the environment as an interactive element in the constitution of disability and the systemic approach to the issue gradually transformed the framework for the development of the tool. Associations of people with disabilities also played a major role. The demedicalization of the tool is reflected in the growing involvement of sociologists, psychologists and anthropologists, as well as people with disabilities themselves, in its production process. A powerful intellectual, community and political movement is behind the move towards ICF. The Anglo-Saxon countries and Quebec provided the conceptual framework (Disability studies). The international Independent Living movement and the lobbying of international disability organizations carried this thinking forward. Major world organizations (UN, Council of Europe, EU) have mobilized politically in favor of the rights of disabled people.[3] .
Twenty-five years of work culminated in the WHO's endorsement in 2001 of the International Classification of Functioning, Disability and Health (ICF)[4] .

2. International Classification of Functioning, Disability and Health (ICF); 2001

Conceptual evolution

The fruit of a profound evolution in health concepts over the last twenty years, ICF is organized around the bio-medico-pycho-social concept and the complexity of social and environmental interactions. The evolution of ICIDH into ICF is well described by Patrick Fougeyrollas, President of the International Network on the Disability Creation Process (INDCP), in an article available for download.[3]

This new classification analyses disability situations by four components:

- the organism (anatomical structures and physiological functions that are more or less deficient - no one has a perfect body!)
- participation (accessible or inaccessible activities, actions that can or cannot be performed)
- environmental factors (what society has or has not done to facilitate the integration of people with disabilities)
- personal factors (individual situations)

Thus, disability is not an illness, nor a purely individual problem, but a situation influenced by various factors, including physical and social factors. The same deficiency, the same bodily problem, will be experienced very differently depending on h o w society views it, depending on how society is organized5.

Health as a dynamic phenomenon

The elements of ICF are in a circular relationship and interact with each other. It is this interactivity that enables us to see health as a dynamic phenomenon resulting from complex influences. The following figure summarizes this situation:

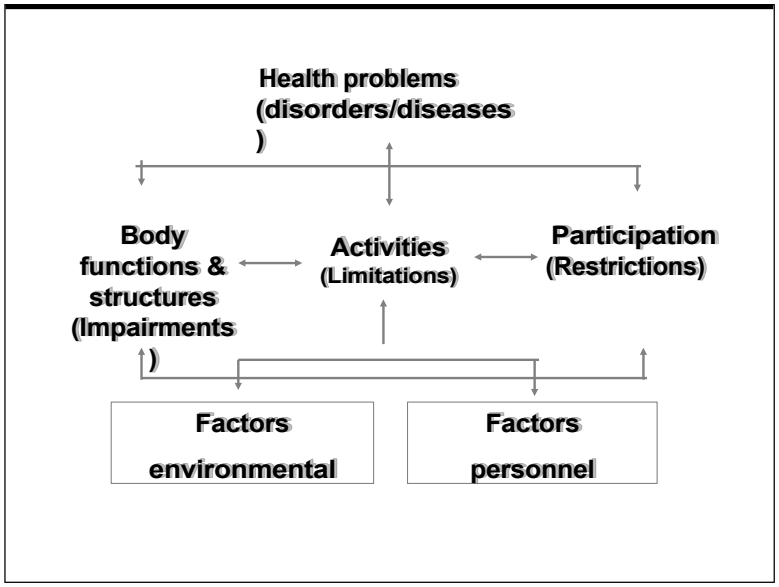

Table 2 ICF conceptual model (2001)

The notion of disability has changed. Disability still implies an anatomical or functional alteration, whatever the cause: congenital anomaly, childhood development disorder, illness, trauma. But the focus has shifted

towards the resulting difficulties for disabled people in participating in social life, and the role that the environment can play in aggravating or alleviating these difficulties[6] .
Disability is conceived as a restriction on people's social participation resulting from the interaction between personal characteristics (including impairments and activity limitations) and environmental factors.

A descriptive vocabulary
ICF is called classification in reference to its membership of the WHO's International Family of Classifications. In fact, it is a descriptive vocabulary of human reality and its interactions. It establishes a fairly complete but non-exhaustive list of domains to describe the structure of living organisms, their functions and their social and environmental interactions. These domains are not exclusive, and the imprecision of certain items creates a certain overlap. ICF attempts to objectify how people cope with their health problems.
It is through the introduction of "qualifiers", a kind of severity indicator attached to the various domains, that it touches on the concept of classification, insofar as the indicators introduce a hierarchy of the problems encountered.

A classification, not just a list
In the ICIDH (1980) classification, the relationship between impairment and activity limitation was seen as causal, which is not the case in the ICF (2001). The ICF describes impairment, but activity limitation is not necessarily the result. In ICF, the term impairment is used exclusively to describe limitations of bodily structures or functions. Activity limitation refers to difficulties encountered by the person
The break with ICIDH is almost complete. ICIDH listed deficits, whereas ICF aims to describe the living world in a neutral, systemic way, and adds any interactive problems.
ICF is therefore an instrument that can be used for descriptive, research and statistical purposes by any institution that claims to be concerned with the existence of human beings and their health, with or without connotations of alteration, deficiency or disability.
Because function and disability are contextual, ICF also includes a list of environmental factors. The term "function" is emphasized because it focuses on health and functioning rather than disability. [7]
The ICF thus complements the ICD (International Classification of Diseases) and goes far beyond mortality and disease.

Another point of view
ICF is interesting as a nomenclature that does not belong to any particular discipline, nor is it based on any particular corpus. On the contrary, it offers another p e r s p e c t i v e on life situations, at a distance from clinical analysis, since it does not have the same objectives. The aim is to identify the possibilities and obstacles to integrating people into society's ordinary environments and institutions, not to diagnose their intellectual or psychological functioning. [8]
We'll see later how ICF has established itself as an international standard.

3. ICF structure

The authors use the following terms to describe the ICF structure: parts, components, chapters, blocks, categories, levels, schemas and qualifiers. Chapters and categories are divided into levels. The term schema is used to describe the hierarchical structure using qualifiers.

Parts

The ICF is structured hierarchically according to standard taxonomic principles[*] . It is organized in two parts:

Part 1 includes the following components:
- organic functions and anatomical structures
- activities and participation

Part 2 includes the following components:
- environmental factors,
- personal factors (not classified in ICF).

You can explore the classification in French on the WHO website dedicated to ICF.[†]

Components

There are four components, each identified by a letter:

- **b** for organic functions
- **s** for anatomical structures
- **d** for activity and participation
- **e** for environmental factors

The components Organic Functions and Anatomical Structures, Activities and Participation, and Environmental Factors have been classified independently of each other. Consequently, terms included in one of these components are not included in the others. If you wish[‡] , you can replace the prefix **d** with **a** (activity) or **p**(participation), to indicate a reference to Activity or Participation.

Chapters

Each classification component is organized into chapters or domains, under which common categories or specific elements are listed.

- **Body functions**: 8 chapters
  Organic functions refer to the physiological functions of organic systems (including psychological functions).
- **Body structure**: 8 chapters

[*] "standard taxonomic principles": expression as used by ICF authors
[†] You will find all useful Internet references with the reproduction of this article on http://docpatient.net/cif/
[‡] "If he wishes" is the expression used by the ICF authors.

Anatomical structures refer to parts of the human body, such as organs, limbs and their components.

- **Activities and participation**: 9 chapters
  Activity means performing a task or doing something.
  Participation means taking part in a real-life situation.
- **Environmental factors**: 5 chapters
  They constitute the physical, social and attitudinal environment in which people live and conduct their lives. The factors are external to the person and can have a positive or negative influence on the person's performance as a member of society, on the person's ability, or on an organic function or anatomical structure of that person.

Categories

These are the classes and subclasses within a given chapter of a component, i.e. classification units. Within each chapter, there are distinct two-, three- or four-level categories, each with a short definition of the category, with inclusions and exclusions to help select the appropriate code.
For each component, the categories have been articulated according to a hierarchical tree structure described as a trunk-branch-leaf diagram§ such that a lower-level category shares the attributes of the higher-level categories of which it is a part.
The categories are designed to be mutually exclusive, i.e. two categories of the same level do not share exactly** the same attributes. However, this does not mean that more than one category cannot be used to classify the functioning of a particular individual. Such a practice is authorized, and even recommended, if need be.

The **blocks**
Chapters are often subdivided into "blocks" of categories.
For example, in chapter 3 of the Activity and Participation (Communication) classification, there are three blocks

- Receiving messages (d310-a329)
- Producing messages (d330-a349)
- Conversation and use of communication devices and techniques (d250-d289)

Blocks are there to facilitate the user's task and are not normally used for coding.

Levels

They define the hierarchical layout that provides detailed category indications (i.e. the granularity of domains and categories). The first level includes all the elements of the second level, and so on.

§ "Trunk-branch-leaf diagram": expression used by the ICF authors.
** "Not exactly": expression as used by ICF authors

While chapters occupy level 1 of the classification, categories occupy levels 2 to 4.
The letters b, s, d and e are followed by a numerical code starting with the chapter number (1 digit), followed by the second level (2 digits) and the third and fourth levels (only for organic functions) (1 digit each).

For example, the classification of organic functions:

- b2 Sensory functions and pain (level 1 element)
- b210 Visual functions (level 2 element)
- b2102 Quality of vision (level 3 element)
- b21022 Contrast sensitivity (level 4 element)
-

Below are a few examples of categories and their successive levels.

b160 Thinking functions specific mental functions associated with the ideatory component of the mind **Inclusions:** functions of rhythm, form, control and content of thought; functions of goal-directed thought; functions of non-goal-directed thought; functions of logical thought; functions of pressure of thought, evanescence of ideas, blocking of thought, incoherence of thought, tangential thought, circumlocutory prolixity, delirium, obsessions and compulsions **Exclusions:** intellectual functions (b118); memory functions (b144); psychomotor functions (b148); perceptual functions (b156); higher-level cognitive functions (b164); language-specific mental functions (b168); calculation functions (b172) **b1600 Rhythm of thought** mental functions that produce the speed of the mental process **b1601 Form of thought** mental functions that organize the mental process with respect to its coherence and logic Inclusions: impairments of ideational perseveration, tangential thinking and circumlocutionary prolixity **b1602 Thought content** mental functions consisting of the ideas present in the mental process and what is conceptualized Inclusions: impairments of delusions, over-invested ideas and somatization **b1603 Thought control** mental functions that provide voluntary control of thought and are recognized as such by the person Inclusions: impairments of rumination, obsessions, diffusion of thought and insertion of thought **b1608 Other specified thought functions b1609** **Unspecified thought functions**

Table 3 Example of a category in the body function component (b), Chapter 1 mental functioning, category 60

Schematics

Patterns are defined by the use of qualifiers. It is the application of these qualifiers that enables ICF to be used to assess health status. Qualifiers designate, for example, the importance of the level of health or the severity of the problem in question. Qualifiers are coded as one, two or three digits after the separator. The description of an ICF item is expressed by a specific code plus at least one qualifier code. Otherwise, the specific codes have no meaning.

There are four diagrams for Part 1 and two for Part 2.

- For Part 1, these are :
  - diagrams of body structures
    - **1. qualifiers for changes in anatomical structure** (s)
  - diagrams of organic functions
    - **2. qualifiers for changes in organic functions** (b)
  - diagrams concerning activities and holdings (d) or (a & p)
    - **3. capacity qualifiers**
    - **4. performance qualifiers**

- For Part 2, this involves:
  - diagrams of environmental factors (e)
    - **5. facilitating qualifiers**
    - **6. barrier qualifiers**

Generic qualifier

For all components (s, b, d and e), we use the generic qualifier uniform, with a scale from 0 to 4. Having a difficulty can mean a deficiency, a limitation, a restriction or coming up against an obstacle, depending on the pattern in question. The appropriate adjectives, shown in brackets below, should be chosen according to the corresponding classification field.

xxx.0	NO problem	none, absent, negligible	0-4%
xxx.1	LEGER problem	light, weak	5-24%
xxx.2	MODERATE problem	average, fair	25-49%
xxx.3	SERIOUS problem	high, extreme	50-95%
xxx.4	ABSOLUTE problem	total	96-100%
xxx.8	unspecified		
xxx.9	not applicable		

Table 4 The 5 graduations of the Generic Qualifier

4. Coding technique

A CIF code is made up of an alphanumeric component indicator (s, b, d, a, p or e), a succession of variables reserved for the numeric category code, a dot and a succession of variables reserved for the qualifier codes, which change according to the type of component, except for the first, which indicates the seriousness of a problem and is called Generic Qualifier. The general form of the code is therefore n000.000

a LETTER	n	n
followed by a CHAPTER CODE	0	n0
followed by a level 1 CATEGORY CODE	00	n00
followed by a level 2 CATEGORY CODE (max 4)	0	n000
then a point	.	n000.
followed by one or more QUALIFYING CODES	00	n000.00

Table 5 ICF code construction principle

Category coding

The characteristic of ICF is therefore that each item is described by an alphanumeric code modified by a second numeric code that qualifies the first. In the alphanumeric code, the position of the characters is specific to a component, a chapter, a category and a category level. The general pattern of an ICF alphanumeric category code is **n000**, where **n is** one of the alphanumeric characters **s, e, d, a, p,** or **e**, and **x** is a number specific to the item classification. Category codes can be found on the WHO ICF website[7] . The website www.icfillustration.com provides illustrations for each category.

Examples:

- Functions (b)
  b2101designates the functions of the visual field. **d** for activity and participation in which **2** is the chapter on sensory functions and pain, **10** refers to visual functions and **1** specifies the visual field.
- Structures (s)
  s73001 designates the **elbow joint**. In this example, **s** refers to **Body Structure**, **7** indicates Chapter 7: Structures related to movement, **30** indicates the structure of the upper limb, 0 the arm and **1** specifies the elbow.
- Activities and Participation (d)
  d5201 means **taking care of your teeth**. In this example, **d** refers to the **Activity and participation** component, **5** refers to chapter 5 of this component, **20** is the **take care of your body** category and **1** indicates teeth.
- Environment (e)
  e5401 refers to **Transportation-related systems**. In this example, **e** refers to Environmental Factors, **5** refers to Chapter 5 Services, Systems and Policies, **40** to Transportation Services, Systems and Policies **1** to Transportation Systems.

Codes Qualifier Organic functions

The Organic Functions component comprises 8 chapters and uses the Generic Qualifier in the first position after the period.

b 0 0 0. _

The code to the right of the point is chosen from the 5 levels of the Generic Qualifier. This marks any alteration and its level of importance.

b 0 0 0. 0	no problem
b 0 0 0. 1	minor problem
b 0 0 0. 2	moderate problem
b 0 0 0. 3	serious problem
b 0 0 0. 4	total problem
b 0 0 0. 8	unspecified
b 0 0 0. 9	not applicable

For example:

The impairment of a person suffering from hemiparesis can be described with code b7302 "Power of muscles on one side of the body".

Once the impairment has been identified, its severity can be graded using the generic qualifier code. For example :

b.7302.1 LIGHT muscle power deficiency on one side of the body (5 to 24%) b.7302.2 MODERATE muscle power deficiency on one side of the body (25 to 49%) b.7302.3 SEVERE muscle power deficiency on one side of the body (50 to 95%) b.7302.4 ABSOLUTE muscle power deficiency on one side of the body (96 to 100%)

The absence of a disability (according to a predefined threshold) is marked with a "0" for the generic qualifier code. For example:

b7302.0 NO impairment of muscle power on one side of the body

If there is insufficient information to classify the severity of the impairment, the number 8 should be used. For example, if an individual's medical file indicates that he/she suffers from a weakness on the right side of the body, without giving any further details, then the following code could be applied:

b7302.8 Unspecified impairment of muscle power on one side of the body

Qualifier Body system

The Body Structures component comprises 8 chapters. The Generic Qualifier codes the severity in the first position after the point, the nature in the second and the location of the impairment in the third.

s 0 0 0. _ _ _

The first code to the right of the point, marking the **severity**, will be chosen from the 5 levels of the Generic Qualifier. In this way, we mark any alteration and its level of importance.

s 0 0 0. 0 _ _	no problem
s 0 0 0. 1 _ _	minor problem
s 0 0 0. 2 _ _	moderate problem
s 0 0 0. 3 _ _	serious problem
s 0 0 0. 4 _ _	total problem
s 0 0 0. 8 _ _	unspecified
s 0 0 0. 9 _ _	not applicable

The second code to the right of the point, marking the **nature of** the impairment of the anatomical structure, will be noted according to the following scale;

s 0 0 0. _ 0 _	no change in structure
s 0 0 0. _ 1 _	total absence
s 0 0 0. _ 2 _	partial absence
s 0 0 0. _ 3 _	additional part
s 0 0 0. _ 4 _	abnormal dimensions
s 0 0 0. _ 5 _	discontinuity
s 0 0 0. _ 6 _	deviant position
s 0 0 0. _ 7 _	qualitative structural changes
s 0 0 0. _ 8 _	unspecified
s 0 0 0. _ 8 _	not applicable

The third code to the right of the point will indicate the **site of** the impairment affecting an anatomical structure according to the following codes.

s 0 0 0. _ _ 0	more than one seat
s 0 0 0. _ _ 1	right
s 0 0 0. _ _ 2	left
s 0 0 0. _ _ 3	on both sides
s 0 0 0. _ _ 4	before
s 0 0 0. _ _ 5	rear
s 0 0 0. _ _ 6	proximal
s 0 0 0. _ _ 7	distal
s 0 0 0. _ _ 8	unspecified
s 0 0 0. _ _ 9	not applicable

Examples:

- A patient suffers from severe alteration of the surface of the cornea, which shows a clearing (quantitative change in structure) on the right side.

category code	cornea	**s2201**
first digit to the right of the	severe deficiency	**. 3**
second digit to the right of the point	structural change	**. _ 7 _**
third digit to the right of the	on the right	**. _ _ 1**

complete code : **s2201.371**

- A patient's integrity is severely impaired by a total absence of the right knee joint, temporarily replaced by a spacer.

category code	knee joint	**s75011**
first digit to the right of the	severe deficiency	**. 3**
second digit to the right of the	total absence	**. 1**
third digit to the right of the	on the right	**. _ _ 1**

complete code:

- A patient is moderately affected by multiple brain lesions caused by multiple sclerosis.

category code	structure of the cerebral cortex	**s1100**
first digit to the right of the point	moderate impairment	**. 2 _ _**
second digit to the right of the point	qualitative structural changes	**. _ 7 _**
third digit to the right of the point	more than one seat	**. _ _ 0**

complete code : **s1100.270**

Activities and Participation Qualifier

The Activities and Participation component comprises 9 chapters and uses the Generic Qualifier in the first position after the dot to estimate Ability and in the second position after the dot to estimate Performance.

Example: **d4500**: category code: walking short distances

Has severe difficulty walking short distances **d 4 5 0 0. 3 _** capacity		Assisted (crutches), no difficulty walking short distances **d 4 5 0 0. _ 0** performance	⇨	Can't walk alone, but can use crutches for short distances **d 4 5 0 0. 3 0**

A reminder of the definitions published by the authors of ICF, whose synonymic and tautological nature should be noted: An **activity** means the execution of a task or the fact that a person is doing something.

- **Participation** means taking part in a real-life situation.
- **Activity limitations** refer to the difficulties a person may encounter in carrying out an activity.
- **Participation restrictions** refer to the problems a person may have in participating in a real-life situation.

Qualifying code for :

- **Ability**: a person's ability to perform a task or action in a standard environment without assistance.
  This code defines the highest level of functioning a person is likely to achieve in a given area at a given time.
  We need an answer to the question: "*Can the person perform this task*? The answer is: *he or she can!* A person's intrinsic ability to perform a task or undertake an action is assessed in a "standard" environment.
- **Performance**: what the person does in his or her usual living environment (including assistance). We need an answer to the question: "*Does the person do this task?*
  He does it! This notion is environment-dependent (refer to the coding of qualifiers in the environment component):

Examples:

- A patient is alexic and even if we help him, he can't do it.

category code	Read	d166
first digit to the right of the point: capacity	total disability	. 4 _
second digit to the right of the point: performance	total disability	. _ 4

complete code : **s166.44**

- Polyarthritis patient has great difficulty washing himself

category code	washing body parts	d5100
first digit to the right of the point: capacity	can only do so with great effort	. 3 _
second digit to the right of the point	after adapting the shower (seat, bars, etc.)	. _ 1

complete code : **d5100.31**

- A department head is hellish with his subordinates

category code	Relations with subordinates	d7501
first digit to the right of the point: capacity	total impairment; harassment, complaints, etc.	. 4 _
second digit to the right of the point: performance	clear improvement after plant psychologist intervention	. _ 1

complete code : **d7501.41**

Environment qualifier

The Environment component comprises 5 chapters and uses the gradation of the Generic Qualifier in a particular way, depending on whether the effect is facilitative or barrier.

The generic codes will therefore be presented in two ways for the Environment component:

Facilitator qualifier (sign+)	Barrier qualifier (sign -)
e000. +0 NO facilitators	e000.-0 NO Obstacle
e000. +1 Facilitator LEGER	e000.-1 Obstacle LEGER
e000. +2 MODERE Facilitator	e000.-2 MODERATE obstacle
e000. +3 IMPORTANT facilitator	e000.-3 Severe obstacle
e000. +4 ABSOLUTE facilitator	e000.-4 ABSOLUTE obstruction
e000. +8 Facilitator not specified	e000.-8 Unspecified obstacle
e000. +9 not applicable	e000.-9 not applicable

- Tetraplegic person who can drive an adapted vehicle

category code	Technical products and systems to facilitate mobility and transport, indoors and out	**e1201**
qualifier Environment	full facilitating effect (+ sign)	**+ 4**

complete code : **e1201. +4**

- Patient with language disorders improving after speech therapy (logopedics)

category code	Health services, systems and policies	**e580**
qualifier Environment	Important facilitator (+3 sign)	**+ 3**

complete code : **e580. +3**

- Humidity in the home is a big problem

category code	Humidity	**e2251**
qualifier Environment	Major obstacle (sign -3)	**- 3**

complete code : **e2251.-3**

5. Information acquisition techniques

Although it implies a significant change in the patient's perception, ICF has been used by many authors worldwide, but most often in a piecemeal or experimental form.

ICF Check list

Unlike other categorical tools such as ICD or ICPC, authors generally do not use ICF in its entirety, either in printed or electronic form. The situations it describes are too numerous and complex (1,400 items) to facilitate global use. The WHO has published a standardized questionnaire, the "ICF check list", available in French at[9] . This questionnaire covers the main categories of the Classification. At 15 pages long, it is an impractical tool for recording information on a person's functioning and disability.

ICF Core sets

Another method is the creation of specific lists by the researchers themselves. Researchers sort through and select from the 1400 items in the ICF those that seem relevant to the proposed research. This selection is usually based on an evaluation by a panel of experts, often using a Delphi method[10] . This process results in a list of items commonly referred to in the literature as an "ICF Core Set". ICF Core Sets have been proposed for many clinical pictures. As expected, it was disability and rehabilitation professionals[11] , rheumatologists and physiotherapists who first implemented the tool. They were soon followed by researchers from all fields, and very different clinical situations were studied in this way, such as multiple sclerosis[12] , migraine[13] or back pain[14] .

A comprehensive review of ICF usage between 2001 and 2005 was published by Bruyère et all[15] and supplemented in 2007 by Stamm and Machold. [16]

ICF and occupational medicine

ICF is particularly attractive in the area of the relationship between disability and work. Analysis of body structure and functions, as well as activity and participation, can provide an assessment, but the choice of qualifiers remains a highly relative problem of judgment, as does the question of the environment, which is of course never standardizable in real-life conditions[17] . A functioning scale based on ICF was developed in Norway to examine patients' self-assessment of their work capacity. Analysis of 383 cases of work incapacity validated the scale[18] Another Norwegian study, again using ICF, provides an approach to the difficult question of incapacity due to low-back pain and its dependence on contextual factors[19] . A Mini-ICF-P, i.e. a psychiatric mini ICF, has even been developed in Germany, enabling the work capacity of patients to be assessed with an acceptable correlation rate.[20]

6. Discussion

We can see that ICF is a dynamic tool, with a reputation for applicability in both research and management. On the whole, there's a fundamental difference between ICF and

other WHO tools. ICF is the fruit of a multidisciplinary, non-medical approach. The doctors who co-authored it largely followed in the footsteps of psychologists, anthropologists and sociologists, some of whom were also people suffering from impairments in their personal lives. The Quebec network and in the USA the
The paradigmatic evolution of ICF into a holistic tool has been largely determined by the "independent living" concept[3] .

The use of ICF has made it possible to take into account not only the severity of the illness, but also the importance of environmental and personal factors in promoting a return to work[21] . However, the remarkable qualitative ethnographic study by Meershoek et al.[22] clearly showed that the assessment of disability involves much more than formal, rational decision-making. Physicians' reasoning is inherently contextual and deliberative, so their assessment of a patient's incapacity is far less technical than normative.

We've already seen that coding with ICF is difficult and time-consuming. Training is essential. ICF should provide a standardized vocabulary for use by professionals[23] .

ICF is a complex tool. It requires in-depth learning in three areas. Classifications are an arduous task in the case of ICF, with its 1,400 concepts and its hierarchical, coded structure. Designing and coding information-gathering forms is also time-consuming. But the most demanding aspect is learning to think in terms of the bio-psycho-social model, in which the individual, his or her environment and functioning are the focus of attention[24] .

ICF concerns only the objective dimensions of functioning and disability, but does not recognize or classify the subjective dimension (satisfaction, quality of life, subjective experience, etc.)[25] .

ICF uses the concept of a "standard" environment, which is not operational, whose effect is impossible to quantify and cannot be assessed outside a global situation. The concept of standard environment obviously varies according to cultural or economic resources. [8.]

Environmental factors are not in themselves barriers or facilitators. . Their negative or positive aspects arise from the interaction of bodily structures and functions with the environment[26] .

The diversity of indicators of child functioning used in interdisciplinary and multicenter surveys makes it difficult to estimate the nature and severity of disability in childhood. The International Classification of Functioning, Disability and Health in Childhood and Adolescence (ICF-EA) can help standardize information on chronic conditions and disability in childhood.[27]

ICF: a vocabulary rather than a classification?

Shortly before its official publication, the ICF came in for severe criticism from a French taxonomist. Christian Rossignol[28] , who assessed the ICF on behalf of the WHO's French collaborating center, denied that it was a classification, and instead gave it the following status

at most the title of a vocabulary assembled for political rather than scientific purposes. His argument is based on the absence of clear definitions of classes and subclasses, and the lack of completeness and exclusivity of the categories. In his opinion, the absence of precise conceptual definitions makes translation highly uncertain.
His colleague C. Barral, from the WHO's French Collaborating Centre, published a well-documented article in 2002[29] which clearly shows the impact of economic and political decisions to the detriment of scientific groups in the WHO's almost forced endorsement of the ICF.
However, these developments had little impact on the spread of ICF. Eight years later, countless studies in virtually every branch of medicine have made ICF an indispensable international tool. Its success is such that it has been endorsed by the Institute of Medicine in the USA[30] and Europe is sponsoring its development, notably through the Murinet program[31] .
The Murinet project is part of the sixth European research program. It is designed to change the approach to disability and promote a new model of health and social policy in Europe. Murinet is also an educational tool for both senior and junior researchers, who will benefit from training grants. Thirteen partners from six countries and the World Health Organization are involved in this project, which began in February 2007.
This success can also be attributed to the creation of a worldwide network of WHO ICF collaborating centers, led by leading researchers.

ICF: unanswered ethical questions?

The ICF's stated aim is to meet the human being in his or her actions, whatever the circumstances that may have affected them.
However, this seemingly humanistic project is seriously undermined by the failure to take into account at least two fundamental dimensions of the human being: anxiety and time. ICF examines body structures and functioning, analyzes activities and participation, and seeks to take the environment into account. But it does so in a quasi-mechanical way, leading for the sake of the cause to a reification of the human, whose existential anguish is evaluated under the heading of emotions (b152 Emotional functions) and subjectivity forgotten.
The plea of a Japanese researcher[25] to take subjective elements into account in ICF has not been heeded, and it is a cadaveric approach to being that the tool offers us. The assessment of impairments and reactions to them does not bother to know the anger or despair of the patient, who becomes the object of the study rather than its subject.
What then, in the environmental component, of items such as the economic, political and spiritual? Are we going to see the creation of macro databases which, under the pretext of assessing functioning, will be able to store sensitive information on humans with impunity? The pretext of the consequences of terrorism is already the basis for ICF studies[32] . Will ICF soon be studying the causes of terrorism?

Towards conceptual globalization?

The conceptual interpretations that underpin therapeutic action are numerous, and undermine the universal model proposed by ICF.
While a German study[33] takes up the model of sleep as a bodily function (b134), Norwegian colleagues[34] recall that patients see it as a

activity, the interruption of which by pain has severe consequences. Thus, what is classified as a bodily function on the one hand becomes an activity on the other, a source of confusion that Rossignol had already pointed out, as well as the absence of a clear boundary between activity and participation.[28]
In the same German study, spirituality (d930 and sub-categories) is classified according to the ICF as an activity, i.e. something a person engages in, whereas in the model chosen by the Norwegian researchers, spirituality is conceived as the central element of the person, as the essence of the self.
The Norwegian authors point out that the diversity of models parallels the complexity of human beings. In its desire to encompass everything in a single model, ICF shaves and homogenizes, offering a poor representation of the richness of human responses to adversity.
The Norwegian authors also regret that ICF does not take subjective factors into account, arguing that it uses an undefined concept of normality. As a result, patients and healthcare staff may have very different views of the same reality. What's more, even though ICF has items devoted to time (b180 Experience of self and functions of time - b1140 Orientation to time), the dimension of time, that which flows and passes, is insufficiently taken into account. And yet the time of the disabled is very different from that of the non-disabled. Despite all the environmental adaptations, despite all the talk of normalization, time passes with a despairing slowness for the person with only one leg, one hand or who suffers from alexia. Thanks to the help he receives, he will achieve the desired goal, but how long will it take? This aspect of the obligatory slowness associated with disability is nevertheless a determining factor in the daily lives of disabled people, and must be included in the study model of their
"operation
And finally, ICF organizes the observer's "judgment" on an announced scientific basis. Does this make decision-making on perceived handicap or impairment any more objective? Does the distancing of the observer and the observed, and the multiplication of quantitative items, really introduce objectivity into decision-making? Does this make decision-making more scientific, when we know from qualitative research that normative tendencies play a decisive role among medical referees when it comes to assessing a patient's functional deficit?[35]

7. Conclusion

If ICF has imposed itself as an international consensus tool, it is rather an imposition as a lowest common denominator, which although it suffers from conceptual shortcomings and lacks rigor from a taxonomic point of view, allows researchers to believe that they share a common language, a scientific tool and an announced interactive systemic model.
A tool from which the psyche is absent, as historian H.J. Stikker points out[36] . We'll agree with the latter author, for whom ICF deals with "*the industrious, industrial, evaluable, even computerizable citizen, who has no interiority, no passions, no rebellion, no conflicts, in short very little state of mind.*"
We can only recommend that scientists and resistance planners continue their quest for the ideal tool. WHO classifications are generally subject to revision, and we can only hope that the ICF revision will be thorough and systematic.

8. References

N.B. A list of the main websites that contributed to the writing of this text, and which should enable readers to deepen their knowledge of ICF, can be found at **http://docpatient.net/cif/links-cif.html.**

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