

Viewpoint

The International Classification of Functioning, Disability and Health can help to structure and evaluate therapy

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Background

In an ideal health-care system, all clients would have their needs met optimally. Clients' state of health and well-being would be assessed accurately, and therapeutic interventions based on the best available evidence would be provided as needed and wanted. Our health-care system has not yet reached this optimal state. There is a strong heterogeneity in the approaches used to identify clients' needs, to select clients for therapy, in the assessments used to guide therapy, and in the therapies provided (Steiner *et al.*, 2002; Stucki, Ewert & Cieza, 2003). This heterogeneity raises the possibility that some clients receive optimal therapy, whereas others do not. In this article we describe the International Classification of Functioning, Disability and Health (ICF) and suggest how its concepts may be used, in addition to occupational therapy frameworks, to help guide clinical reasoning about clinical assessments and interventions to provide optimal client-centred care and, ultimately, to help us edge nearer to an 'ideal' health-care system.

Communication

A theoretical ideal health-care system would have the various professions, including occupational therapy, each contribute to the complex task of providing effective interventions for clients. This collaboration

would be unified by the use of an overarching conceptual framework that would enable team members to communicate effectively with each other using a common terminology and to collaboratively plan, implement and evaluate intervention strategies. In this context, 'team members' may include any health professionals who work either closely, or loosely, with one another, within or across acute hospital, rehabilitation or community settings. The lack of application of a common conceptual framework may be hindering development of effective therapeutic systems (Steiner *et al.*, 2002).

Effective communication is needed both within treatment teams and also with external parties. When clinicians and managers lack a common conceptual framework, and the rigorously defined vocabulary required for precise communication, optimal communication may not be possible. In our experience, clients' health status typically is reported from the narrow perspective of individual disciplines, rather than with reference to an overarching conceptual framework. Current communication can be labourious and inefficient, and leave little time for coordinated goal setting and planning. Furthermore, it reinforces the tendency for individual professions to focus on minutiae and lose sight of the overall goals of therapy. It does not enhance team work, but emphasises differences between the professions.

When standardised assessments and vocabulary are used, all parties can be sure of the integrity of the data. Use of non-standardised assessments can lead to a lack of trust in any information. This lack of trust in others' assessments has negative consequences. First, prudent therapists may provide lengthy descriptions of the clients' clinical status to minimise the risk of miscommunication. Second, prudent therapists may reassess clients for themselves. These practices are inefficient for individual practitioners and also for health-care systems, but are required to ensure that suboptimal communication does not lead to misunderstandings to the detriment of client care.

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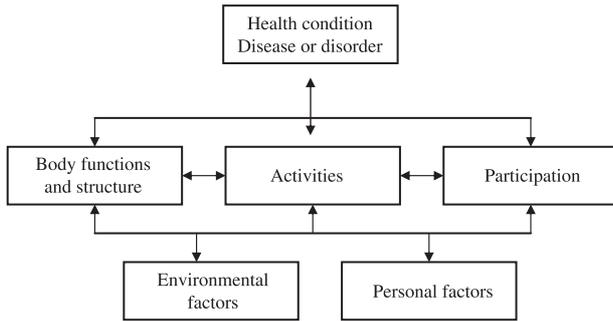


FIGURE 1: Interactions between the components of the International Classification of Functioning, Disability and Health (ICF)

The WHO ‘family’ of international classification systems

The World Health Organization (WHO) has two health status classification systems, the International Statistical Classification of Diseases and Related Health Problems (ICD-10) (WHO, 1992) and the ICF (WHO, 2001), which fit together as the core of a ‘family’ of classification systems.

The ICD codes diseases and injuries, such as are recorded in death certificates and hospital statistics, and the ICF describes how people live with their health conditions. The ICF is a development of the WHO International Classification of Impairments, Disabilities and Handicaps (ICIDH), released in 1980 (WHO, 1980). The use of the two classification systems together provides a standard vocabulary and unified conceptual framework for the description of health states of individuals and of populations (Fig. 1).

The ICF is increasingly accepted as part of an overarching conceptual framework for describing people’s health and well-being. The ICF is frequently mentioned in peer-reviewed literature and official reports, but is yet to be practically incorporated into the routine practice by many clinicians and managers

(College of Occupational Therapists (COT), 2005, Rosenbaum & Stewart, 2004; Stucki *et al.*, 2003; Üstün, Chatterji, Bickenbach, Kostanjsek & Schneider, 2003). The provision of a common language and terminology describing the health and functioning of clients and of practice is crucial when working with other disciplines and organisations, which may have different philosophies, traditions and beliefs (COT). In understanding the complex and dynamic relationships people have with their occupations and their environments, occupational therapists find significant harmony between the language of the ICF and the professional language of occupational therapy, which is based in occupation-based theoretical models (Baum, 2002; Canadian Association of Occupational Therapists (CAOT), 1997; COT; Kielhofner, 2002; Law *et al.*, 1996; Stamm, Cieza, Machold, Smolen & Stucki, 2006). Haglund & Henriksson (2003) concluded that the ICF can serve as a useful tool for occupational therapists and supports communication between professions, but cannot replace occupational therapy’s professional language.

Importance of ICF terminology

Clinicians and health service managers familiar with the ICIDH will immediately notice the ICF is quite similar, but there has been a subtle yet important shift in emphasis. The terminology of the ICIDH and ICF is compared in Table 1. In broad terms, the ICF still categorises health states from the perspective of the body, the individual and society in the same way as did the ICIDH. The ICIDH considered the negative consequences of diseases but the ICF considers the people’s abilities — the ICIDH was cast in terms of impairments, disabilities and handicaps (all negative states), but the ICF is cast in terms of functioning, activities and participation.

The ICIDH could only code ‘normal’ function in terms of absence of impairment or disability or handicap, but the ICF enables coding of normal, as well as abnormal body structure and function, activities and

TABLE 1. Comparison of the terminology used in the World Health Organization’s 1980 International Classification of Impairments, Disabilities and Handicaps (ICIDH) and the WHO 2001 International Classification of Functioning, Disability and Health (ICF)

Concept regarding abnormality of function	ICIDH terminology	ICF terminology
Disorder of body structure or function	‘Impairment’	The ICF has no single term for this and uses the phrase ‘abnormality of body structure and function’ to describe this health state
Abnormality in function at the level of the person	‘Disability’	‘Activity limitation’
People’s inability to fulfil roles that are normal for them, given their gender and age and their particular social setting	‘Handicap’	‘Participation restriction’

participation. *This change reflects the important concept that health is more than just an absence of illness.* The ICF also introduces a system for considering the environmental factors that influence how people live. What people can do in 'optimal' environments is labelled their 'capacity', and what they actually do in their usual environments is labelled their 'performance'. The inclusion of contextual factors in the ICF can highlight how personal and environmental factors serve as barriers or facilitators to activity and participation for individuals and groups of individuals (Brintnell, 2002). This helps to correctly identify the apparent locus of some clients' issues as being with the environment rather than with the person, and hence, to appropriately focus interventions for those clients (Schneidert, Hurst, Miller & Üstün, 2003).

Using the ICF to structure team-based therapy

The ICF conceptual framework and the terminology of the ICF provide a way to understand and describe therapeutic processes and outcomes in their entirety, which otherwise cannot readily be done. Therapeutic interventions may be seen as working to improve disorders of body structure and function, activity limitations and/or participation restrictions, either directly or through alterations in personal factors or environmental factors. Participation can be considered to include people's occupational performance in self-care, productivity and leisure domains.

Use of the terminology and concepts of the ICF can facilitate a common understanding of the possible goals of interventions within teams and by clients, and can also be used to structure the team approach to achieve genuinely client-centred care. For example, if rehabilitation team members obtain a clear appreciation of the participation levels their clients need at the beginning of rehabilitation, the areas requiring amelioration can be discussed and interventions formulated to achieve the goals. All team members, clients and their families can have a common understanding about the rehabilitation process. The ideal team approach is structured around the participation needs of clients; that is, exactly what clients will need to be able to do or have done for them in their environment. Team members can then use their specific expertise to ameliorate, where possible, the body function and structure abnormalities or activity limitations that are causing participation restrictions, or to address any personal factors, such as anxiety, or environmental factors that preclude participation. The common language facilitates a clear understanding of the desired or expected outcomes for clients and ensures that all team members, as well as clients and families, work toward the same goals.

Assessment of progress and intervention outcomes

Progress in treatment may be understood in terms of change in one or more of the domains of body structure and function, activity limitation or participation restriction. This is important for monitoring progress for both clients and teams toward the set goals. Some clinicians use specific measurement instruments with all their clients at clinically relevant, regular intervals to monitor progress, and this is a sound practice. Üstün *et al.* (2003a) reported that although much information is collected about assessment, intervention and treatment outcomes, what is often missing is the information that links diagnosis and treatment to outcomes that are genuinely meaningful to clients.

In rehabilitation settings, where quantitative description of clients' abilities before, during and after rehabilitation is commonly achieved through diagnostic coding and the use of the Functional Independence Measure (FIM) (Uniform Data Systems for Medical Rehabilitation, 1999) or the Barthel Index (BI) (Mahoney & Barthel, 1965), clinicians are often dissatisfied, as these measures can fail to show what is truly important to clients and can fail to show the benefits of interventions. Clinicians know that factors, such as social and environmental issues, which are not assessed by these measures, are important. Clinicians may become disenchanted with all standardised assessments because of the failure of the assessments with which they are familiar to capture meaningful improvement in occupational performance for their clients. Currently used quantitative descriptors of health status often do not, and cannot, adequately describe the outcomes of various interventions. This can lead to an undervaluing of the rehabilitation process in general, and of occupational therapy in particular. For example, consider a person with weak legs and limited walking, if therapy fails to improve leg strength (abnormality of body structure or function) and the distance walked (activity limitation) does not improve despite therapy, the health status as measured by the FIM or BI will not have changed. Through the provision of ramps and an electric scooter, participation may markedly improve, but this is not captured by existing health status measures, hence the benefit of therapy will be understated.

Desrosiers (2005) highlighted that the lack of a clear definition of participation leads to ambiguities for practice. She asserted that some assessment tools may purport to measure participation, but on closer inspection, they measure other constructs, such as the quality of life. Some tools are specifically designed to measure participation, such as the Canadian Occupational Performance Measure (COPM) (Law

et al. (1991) and the Personal-care Participation Assessment and Resource Tool (PC-PART) (Darzins, 2004). It is important that when selecting assessment tools to measure occupational performance, or participation, that the tools actually measure this.

If the various components of the ICF — body structure and function, activity limitation and participation restriction, were each measured using valid assessment approaches, then it would be possible to use these measures separately, or in combination, to assess progress in treatment for individual clients and groups of clients with similar conditions (Üstün, Chatterji, Kostansjek, Bickenbach, 2003). Valid assessment of progress in treatment would allow examination of therapeutic practices and facilitate continuous process improvement.

Summary

The conceptual framework and the vocabulary provided by the ICF can help occupational therapists and health-care teams examine and optimise their practices through a systematic approach to assessment, goal setting, intervention planning and evaluation of progress. It may also promote better documentation and communication.

Together, the WHO ICD and ICF can comprehensively describe people's health status, including that of people who need, are receiving, or have had, treatment. The well-defined conceptual framework of the ICF, and the terminology that it employs, can help clinicians and managers to both understand and discuss therapeutic interventions. If the components that make up the ICF — body structure and function, activities and participation were to be validly measured, these could be used separately and in combinations for clinical and management decision-making:

- The need for therapy interventions could be established for individual clients and for groups of clients.
- Communication within teams could be optimised, and hence, clinical decision-making might be optimised.
- Communication with clinicians and service providers external to treatment teams might also be optimised, hence handover of clients might be optimised.
- The effectiveness of therapy could be established through the evaluation of outcomes of therapy.
- Efficiency of therapy could be established by dividing the effectiveness by the costs of the interventions.

Occupational therapists may find the concepts of the ICF easier to understand than do professionals from disciplines where the concepts of occupational performance and participation are not central. Occupational therapists have a huge opportunity to take a leading role in facilitating use of the ICF to promote effective and efficient health care.

The ICF has the potential to improve health care. At this stage, the approaches to measuring some aspects of health and well-being, using the concepts of the ICF, are not fully developed, but further development is likely. The ICF terminology might initially seem awkward to use but with increasing familiarity, clinicians will find it useful. Clinicians and managers who make the initial investment in learning the ICF almost certainly will reap a good return on their investment to the benefit of their clients.

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