International Encyclopedia of Rehabilitation

Center for International Rehabilitation Research Information and Exchange (CIRRIE)
515 Kimball Tower
University at Buffalo, The State University of New York
Buffalo, NY 14214
E-mail: ub-cirrie@buffalo.edu
Web: http://cirrie.buffalo.edu

This publication of the Center for International Rehabilitation Research Information and Exchange is supported by funds received from the National Institute on Disability and Rehabilitation Research of the U.S. Department of Education under grant number H133A050008. The opinions contained in this publication are those of the authors and do not necessarily reflect those of CIRRIE or the Department of Education.

Rehabilitation

Maurice Blouin
Institut de réadaptation en déficience physique de Québec (IRDPQ)

Luz Elvira Vallejo Echeverri
Institut de réadaptation en déficience physique de Québec (IRDPQ)

"Rehabilitation is Humanism"

Howard Rusk, Physiatrist,
Founder of the Rusk Institute of Rehabilitation, NY

Scope of the article

Rehabilitation and its subject, disability, are complex, multifaceted human phenomena. They are the topic of this encyclopedia. This article focuses on some important aspects of disability and rehabilitation that are not covered elsewhere in this encyclopedia. It insists mainly on multidisciplinary integral rehabilitation because it is the best form of rehabilitation and that it should be seen as a model for all other types of rehabilitation.

Universality of disability

The phenomenon of disability, the phenomenon of people living with significant physical and psychological differences, and the social and environmental consequences of these differences is as old as mankind (6.5 million years). It is not uncommon in other animal species. In its extension, it affects all human aspects, whether they are physical, psychological, social and environmental. It also includes specific differences, consequences of diseases, traumas and genetic conditions that are not so common. The phenomenon of disability is universal in the sense that almost all people acquire disabilities. More than 80% of elderly people live with a disability today. This will be increasing as many more people are getting older. The history of the recognition of the situation of disabled people varies from one country to the other. Rehabilitation and the social, political and economical organization towards people with disabilities has also varied, and continue to vary from one country to the other. International organizations of people with impairments have helped the United Nations in adopting charters and conventions obliging signaturies to implement the rights of people with impairments, including the right to rehabilitation.

In the past, archaeologists have uncovered a cavern where a man with poliomyelitis had died right besides the fire he was presumably keeping alive while the other members of the group were hunting and gathering. The process that led to the decision of getting this man in charge of the fire is rehabilitation, though, of course, we cannot precisely deduce how that happened solely from the findings.

Throughout history, many people who had an impairment experienced glorious lives, like the poets HOMER (700 BC) during the Greek civilization and ABU 'L-'ALA AL-

MA'ARRI during the Arab civilization (Albrecht, 2005). They were both blind. The process that led to the organization of their successful life is an example of rehabilitation.

Organization of rehabilitation

The history of the organization of modern rehabilitation is quite recent and very different from one country to the other. Rehabilitation institutions development varies considerably from simple clinics to complex multidisciplinary organizations, as described for Europe in Helios, 1996. Those differences stem mainly from the pace at which the different states have developed legal obligations (rights charters, laws, and regulations) of all kinds towards their citizens, especially people with disabilities. Some States also have developed a special legal framework towards people with disabilities and their universal rights, including free, universal, accessible, and complete rehabilitation. On this last aspect, after the Charter of Rights, the adoption in 2006 by the UN General Assembly of the Convention on the Rights of Persons with Disability should help enhance and develop rehabilitation throughout the world. The transition of the person from the rehabilitation institution to the community is very different pending on the type of rehabilitation facility and other factors. For a report on the transition from institutional to Community-based care in Europe, see:
http://ec.europa.eu/social/main.jsp?catId=429&langId=en.

The first modern rehabilitation institute

In *A World To Care For*, Doctor Howard Rusk (1972), the founder and organizer of the Rusk Institute of rehabilitation in New-York City tells the story of a French jockey. During a race some time after the Second World War, he fell from his horse and got a spinal cord injury that left him paralyzed. Sometimes later, he met with Dr Rusk who brought him to the USA, had stones removed from his kidneys and fitted him with the proper orthoses. That process is rehabilitation. The man returned to France and lived a "useful and productive life" thereafter. Since its foundation, the Rusk Institute of Rehabilitation Medicine has become a model of modern rehabilitation. Modern rehabilitation addresses the entire person, with their physical, psychological and social and environmental needs for what is called "total" or "integral rehabilitation" through multidisciplinarity. (See http://rusk.med.nyu.edu)

Example of programs at a modern rehabilitation institute

Another example of how rehabilitation is organized in modern facilities is the *Institut de réadaptation en déficience physique de Québec* (IRDPQ). The IRDPQ is a Rehabilitation University Institute that was founded in 1965. (See http://irdpq.qc.ca) It provides services to persons with significant impairments through 35 programs, and training through more than 100 courses for 700 trainees per year:

Programs for children and adolescents

- Environment Control and Communication Support for Motor Impairments
- Hearing Impairments (Children aged 0-4 and 5-8)
- Cerebral Palsy
- Visual Impairments

- Child Development
- Dysphasia
- Musculoskeletal Lesions
- Spinal Cord Disorders
- Traumatic Brain Injuries
- Rehabilitation of Motor Impairments in Special Needs School Settings
- Rehabilitation of Hearing Impairments in Regular School Settings
- Rehabilitation of Hearing Impairments in Special Needs School Settings

Programs for adults

- Amputation
- Environment Control and Communication Support for Motor Impairments
- Hearing Impairments
- Visual Impairments
- Brain Disorders
    - Stroke
    - Cerebral Palsy
- Musculoskeletal Lesions
- Burns
- Spinal Cord Disorders
    - Spinal Cord Injuries
    - Multiple Sclerosis
    - Neuromuscular Diseases
- Social and Vocational Rehabilitation for Motor Impairments
- Social Integration Support for Motor Impairments
    - Adaptation and Social Integration
    - Day Care Center
    - Driving Expertise and Assessment
    - Home Residential Adaptation
    - Rent Supplement
    - Sheltered Work
- Traumatic Brain Injuries

Programs for elders

- Hearing Impairments
- Visual Impairments

Programs for all ages

- Cochlear Implants
- Deafblindness
- Hearing Aids
- Visual Aids
- Assistive Technology Products
    - Mobility and Postural Aids

- Compensatory Aids
- Prostheses, Orthoses, Podorthoses

All those programs are evaluated systematically and continually through a questionnaire that is sent to the 20,000+ clients who benefit from services every year.

Each program operates with multidisciplinary teams. Within each program, the person with impairments is at the center of the process of rehabilitation. Each client participates in making his personal intervention plan by objectives. Their plan is then implemented through the multidisciplinary team.

Roles of rehabilitation clinicians

Here is a definition of the role of each clinician involved in the head trauma program for adults at the *Institut de réadaptation en déficience physique de Québec*:

Vocational Counsellors

The role of vocational counsellors is to support clients in their efforts to go back to school or work. In doing so, vocational counsellors assess the school adjustment issue of clients, as well as their employability profile in order to identify their strengths and match them with the labour market requirements. Vocational counsellors assist clients in their efforts to adjust to educational or vocational changes through counselling interviews. The role of vocational counsellors is to promote a better understanding of the client's self (interests, personality, skills, etc.,) and of his/her environment. Vocational counsellors help clients to define their educational and vocational choices in a realistic fashion. . Vocational counsellors use psychometric tests to validate their opinion if required. They are also involved in the follow-up of the clients' integration efforts, and support the selected environment in which the occupational integration will occur.

Physical Educators

The role of physical educators is to improve the overall physical endurance, and resistance of clients, as well as to support their efforts in returning to their previous activities in terms of physical condition. Physical educators assess clients' physical condition, develop and promote the update of training plans that meet their needs. They facilitate training sessions in pools, fitness centers and/or gymnasiums. They also foster background generalization through physical activities and/or sports in groups or on an individual basis in technical or community settings. In addition, physical educators support clients in their efforts to return to their previous physical activities, or to develop new interests through education, simulation exercises, referrals to fitness centers in the community, or program delivery at home.

Occupational Therapists

The role of occupational therapists aims at achieving the optimal independence for clients, as well as enhancing their satisfaction in achieving their activities. In doing so, occupational therapists identify the roles and responsibilities that clients must or wish to fulfill. They also analyze the impact of personal and environmental factors on clients in

the achievement of their activities. They assess functional skills, take into consideration expectations expressed by clients and their significant others, as well as their values, skills, and interests in order to improve their abilities, help clients to adjust to their environment and support their efforts in returning safely to their previous significant activities. They ensure background generalization through simulation exercises in groups or on an individual basis, in institutional or real-life settings.

Nurses

The role of nurses is to ensure the follow-up in the delivery of basic health care and rehabilitation needs to clients at the biological, psychological, and social levels during their inpatient rehabilitation period. They assess needs, develop treatment plans, and achieve specific therapeutic, preventive, educational and health promotion interventions. Nurses promote independency and safety of clients and ensure background generalization in daily activities. They intervene in emergency medical situations and various crisis events. In collaboration with concerned peers, they ensure continuity of care through dissemination of relevant information to their colleagues, as well as rehabilitation follow-up, support to significant others, and quality of life in the unit.

Clinical Nursing Specialists

While fulfilling the inherent functions of the nursing role, clinical nursing specialists tailor, apply, and assess care programs that require advanced knowledge in complex medical conditions or in conditions including various biological, psychological, and social aspects. They are involved in the development and application of quality of care assessment tools, coordinate nurse teamwork, and play an advisory role for their peers and other members of the rehabilitation team. Clinical nurse specialists ensure the orientation of new employees, and are involved in the training of internships. They are also in charge of the education provided to clients in specific programs, and are involved in research.

Physicians

The role of physicians is to ensure medical follow-up throughout the inpatient rehabilitation period of admitted clients. They analyze admission records and define recommendations in terms of inpatient admissibility. Physicians assess biological, psychological, and social aspects in clients and determine medical pathways derived from diagnoses and prognoses. They also assess eventual complications, determine treatment indications and contraindications, and refer clients to the appropriate specialists. They work closely with clinical coordinators and the other members of the rehabilitation team in developing intervention plans. Physicians prescribe prostheses, orthoses, technical aids, medications, as well as other treatments or tests as required. They inform clients and their significant others on their health status, rehabilitation outcomes, social participation prognosis and goals to be achieved. Finally, they authorize client temporary discharges, determine restrictions, and sign various medical forms, as well as the final inpatient discharges.

Corrective Therapists

The role of corrective therapists is to assist occupational and physical therapists in their interventions, during specific transfers or exercises, thus contributing in the safe and efficient application of interventions. Upon request of the occupational and physical therapists, corrective therapists position clients, lead them back to their rooms, and clean up therapy rooms. They may also assist in some clinical activities, often under the supervision of occupational and physical therapists (e.g. exercise supervision, teaching of some manual or simple activities).

Musical Therapists

The role of musical therapists is to improve or preserve the physical and psychic well being of clients using musical components (e.g. rhythms, melodies, genres, etc.) and to improve their quality of life during the inpatient rehabilitation period. In doing so, they use different activities (e.g. playing instruments, jam sessions, song writing, etc.) and responsive musical techniques (e.g. musical listening, mental imagery, etc.) in order to stimulate the integration of body image, motor coordination, attention and memory abilities, relaxation, creativity, self-esteem, etc. Musical therapy enables the creation and preservation of therapeutic relationships with clients whose late effects of their disease or disability, or even their type of personality, do not leave much place for more conservative psychotherapeutic modalities.

Neuropsychologists/Psychologists

The role of neuropsychologists and psychologists is to help clients to adjust to their new condition in the best possible way when returning to their previous activities. For this purpose, they assess intellectual, cognitive, behavioural, emotional and personal aspects in clients using various assessment tools, questionnaires, and interview techniques. Neuropsychologists and psychologists formulate expert opinions regarding differential diagnoses, develop treatment plans, and provide psychological and/or neuropsychological follow-up treatment. In collaboration with other members of the interdisciplinary team, they contribute to developing, disseminating, and monitoring of the various prognoses. They help the team and significant others to better understand and intervene in behavioural and/or neuropsychological issues. Neuropsychologists and psychologists also act as advisors for various peers in the rehabilitation network.

Speech Therapists

The role of speech therapists is to develop functional communication between clients and their entourage and to ensure safety when they eat by improving their swallowing mechanisms. For this purpose, they assess speech, language, communication and swallowing skills. They provide expert opinions and prognoses according to the nature and severity of disorders. Speech therapists explain communication problems to clients and their significant others, teach communication strategies and provide follow-ups as required. They also ensure background generalization through simulation exercises in group or community settings. In some cases, they assess the relevance of using augmentative communication devices, provide recommendations on the choice of

technical aids, and are involved in the training of clients and integration of the selected device in daily life situations.

Physical Therapists

The role of physical therapists is to achieve the optimal functional recovery of impairments in the neurosensorimotor, skeletal, respiratory, and vestibular systems that limit clients in achieving their activities. As required, they assess these various systems in order to identify disabilities involved. Physical therapists apply therapeutic modalities in order to develop, restore or preserve skills associated with these systems. They also teach preventive and compensatory strategies, and provide recommendations to improve the functional level and safety of clients in conjunction with the work of the other members of the rehabilitation team. Physical therapists ensure background generalization through simulation exercises in group or individual settings.

Attendant Nurses

The role of attendant nurses is to work closely with the nursing team to promote independence and safety of clients during the inpatient rehabilitation period, as well as to ensure background generalization in daily activities. For this purpose, they ensure well being and provide for special needs of clients, as well as helping them in their mobility. According to the needs of clients, they provide basic care and may be called upon to set some devices for which they have received training. Attendant nurses control, update client schedules, and lead clients to their appointments as required.

Remedial Education Instructors

The role of remedial education instructors is to act as socio-residential and community integration agents. They accompany, watch, and supervise clients in their efforts to return to their previous life habits. They assist clients in their domiciliary, occupational, and social integration. They use real-life situations to support restructuration, promote learning associated with independency and the application of their rehabilitation outcomes in daily life. Through their role, remedial education instructors contribute to the development of skills, especially at the social level, and promote the creation of satisfying relationships between clients and their community.

Recreation Technicians

The role of recreation technicians is to support clients in their efforts to return to and integrate their previous recreation life habits in their environment. For this purpose, they assess the current and previous occupational levels of clients, as well as their expectations and interests in terms of leisure activities. They take into consideration prerequisites required for the achievement of satisfying and fulfilling activities. In collaboration with clients, they suggest and experience socio-occupational alternatives when regular work becomes impossible. They develop educative leisure programs in order to raise awareness and empower clients in fulfilling their leisure time and implement recreation programs according to their individual and collective needs. Recreation technicians organize and facilitate individual and group activities related to sports, games, and socio-cultural events enhancing the well being and rehabilitation of clients. Finally, they light up the life

of clients during their inpatient rehabilitation period in collaboration with the other rehabilitation disciplines.

Social Workers

The role of social workers is to provide psychosocial support to clients and their significant others in all steps of the rehabilitation process. Their first intervention consists of welcoming admitted clients and their significant others in order to comfort them and demystify the rehabilitation process. Thereafter, they proceed with an assessment of the personal, matrimonial, familial and social situations in the life of clients. They also identify skills and expectations of clients and significant others in regards to the rehabilitation process. Social workers bring out psychosocial impacts and issues in relation to disabling situations in order to obtain a global portrait of their clients in interaction with their environment. They provide special support to significant others in their adjustment to new situations and guidance in expressing which aspects therapists should mainly consider in interventions. Social workers facilitate communication between families, rehabilitation team, peers, and organizations in the community. They inform and lead clients and their families in the various approaches to social integration, such as the search for a new place to live. Finally, social workers assess and provide required recommendations regarding the protection of individuals and their property.

Goals of rehabilitation

Social participation has always been the ultimate goal of rehabilitation. But in integral rehabilitation the intermediate goals are also crucial. The intermediate goals of interventions in total rehabilitation are to palliate the impairments of the structures and the functions of the body and the mind; to reinforce and restructure the remaining structures and functions of the body and the mind, which are the residual capacities of the person; and to adjust the activities and participation, and prevent disabling situations by adjusting the environmental factors that affect the person. Besides integral rehabilitation, any truncated form of rehabilitation is better than none. Today, community-based rehabilitation (CBR) focuses on the social participation of persons with impairments.

Economically, the delivery of rehabilitation services by qualified professionals is expensive. But the cost and the human burden of direct help for people who lack autonomy is even more expensive. Some companies who compensate this autonomy deficit have calculated that one dollar invested in rehabilitation further saves roughly two dollars in cost for help. A good rehabilitation service is expensive but it is economically sound.

What is Rehabilitation: A Definition

In 1982, The United Nations World program of action concerning Disabled Persons provided this definition of rehabilitation:

> “The process aimed at enabling persons with disabilities to reach and maintain their optimal physical, sensory, intellectual, psychiatric and/or social functional levels, thus

providing them with the tools to change their lives towards a higher level of independence."

Today, rehabilitation should rather be defined as the "process of evaluation of a person with impairments, and the interventions aiming at that person's social participation" (Adapted from Blouin, Maurice, *Dictionnaire de la réadaptation* and *International Index and Dictionary of Rehabilitation and Social Integration* — IIDRIS). This definition is a quasi-classical one. As such, it describes the general category and the domain that rehabilitation belongs to: "process of evaluation and intervention" (and by inclusion "prevention"), and the specificity of the subject of rehabilitation: a person with impairment. By inference, it states that rehabilitation, as a clinical domain, is a scientific domain, as those evaluations and interventions have a scientific basis. And this is also a teleological definition as it underlines the ultimate goal of rehabilitation, that is the "social participation" of the person, though the intermediate goals of rehabilitation are as crucial as social participation to the person.

Developing a function that a child has never had is habilitation. And bettering an impairment for a person that has already used a function is rehabilitation. In the case of the removal of a cataract or laser reduction of myopia, that is correction.

Terminology of rehabilitation

Rehabilitation is a vast and complex domain that encompasses all aspects of a human being with impairments. So it depends for its descriptions on a large amount of words that have to be selected, defined and described. Many dictionaries that did not primarily focus on the field of rehabilitation have been published (Vergason, 1990; Dufour & Gedda, 2007).

In 1972, Dr. Herman Kamenetz and Georgette Kamenetz published the *Dictionnaire de medicine physique de rééducation et de réadaptation fonctionnelles.* As the title indicates, the scope of the dictionary was limited to the motor functions. In 1983, Dr. Kamenetz published in English a *Dictionary of Rehabilitation Medicine*, implementing the work published in 1972, but with the same scope.

In 1995, after developing a terminotics system, Maurice Blouin authored the *Dictionnaire de la réadaptation – termes techniques d'évaluation, Tome 1*. In 1997, a second tome subtitled *Termes d'intervention et d'aides techniques* was also published. This dictionary accounted for the physical, psychological, social and environmental aspects of rehabilitation. The dictionary included an English-French,/French-English index.

The same year, Dr. Myron Eisenberg authored the *Dictionary of Rehabilitation*. Dr. Eisenberg still is the editor of a major handbook for the rehabilitation professionals *Medical Aspects of Disability*.

Since then, no dictionary exclusively dedicated to rehabilitation has been published. But, two websites were published to contribute to this task.

On the Web

In 1999, under the direction and authorship of Maurice Blouin, the Computer and Terminology Laboratory of Rehabilitation team of the *Institut de réadaptation en déficience physique de Québec* published in French the *Service international scientifique de réadaptation sur l'autoroute de l'information* (SISRAI). (See http://www.med.univ-rennes1.fr/sisrai/) And in 2003, the same laboratory published the *International Index and Dictionary of Rehabilitation and Social Integration* with 18,000 entries in English, French and Spanish. (See http://www.med.univ-rennes1.fr/iidris) A new trilingual version will be published in 2010 with nearly 40,000 entries, including Dr. Eisenberg's dictionary in English, French and Spanish.

The CIRRIE and REHABDATA databases

Another important source of information on the Web are the Center for International Rehabilitation Research Information and Exchange (CIRRIE) and the National Rehabilitation Information Center (NARIC)'s REHABDATA databases. The CIRRIE database first went online in 2000 and as of 2010 has over 127,000 citations of international research on rehabilitation (See http://cirrie.buffalo.edu). REHABDATA contains over 72,000 records of documents on rehabilitation, mainly from the United States (See http://www.naric.com/research/rehab).

The International Classification of Functioning, Disability and Health (ICF)

Also available on the Web (See: http://www.who.int/classifications/icf/en/) is the World Health Organization's International Classification of Functioning, Disability and Health (ICF – WHO 2001) that was first published as The International Classification of Impairment, Disability and Handicap (ICIDH - WHO – 1980). In 1989, Fougeyrollas, St-Michel and Blouin introduced a proposal for the revision of the ICIDH. It was conceived as a classification of the consequences of diseases. As such, it covered all aspects of disability, the specific object of rehabilitation. The main features of that proposal are currently part of the ICF.

The ICF is the official (adopted by the general assembly of WHO in 2001), complete and up-to-date description of disability. It describes exhaustively the physical, psychological, social, and environmental factors that are pertinent in the evaluation of the consequences of diseases, and as such, to determine the level of impairment of a person, including its degree when a severity scale is properly used. To be referred for rehabilitation, a person must have significant and long-lasting impairments of some structures or functions of the body or the mind. This, along with environmental factors, triggers disabilities. The person's activities and participation are disturbed. Clinical subcategories of the ICF should eventually be developed to allow a standard and universal examination of all these aspects. The dissemination and universal use of the ICF is an opportunity to enable the phenomenon of disability become a mainstream concern and an object of acceptance and widespread rehabilitation in the modern world. The use of the ICF terminology also is an opportunity to eliminate the negative and stigmatizing terms and mythologies that have plagued and still plague people with disability.

Encyclopaedias on Disability and Rehabilitation

The three first encyclopaedias of disability and rehabilitation were produced within ten years of time:

Dell Orto, Marinelli, editors. 1995. Encyclopaedia of Disability and Rehabilitation.

With its 170 entries, the encyclopaedia by Dell Orto and Marinelli was the first one to be published. It is now out of print.

Ueda S, Okawa Y. 1996. Encyclopaedia of Rehabilitation Medicine.

Dr Ueda and Okawa's encyclopaedia includes ±11,000 entry words and idioms covering mainly the physical aspects of rehabilitation with great detail. The index of the encyclopaedia is bilingual, Japanese – English, English – Japanese.

Albrecht GL. 2005. Encyclopaedia of Disability. SAGE Publications.

With its 5 volumes and ±1,200 articles, this encyclopaedia is the most recent and the most exhaustive document in our domain. It focuses on the historical and social aspects of disability.

Blouin M, Stone J, editors. 2006-2011. International Encyclopedia of Rehabilitation.

The trilingual international encyclopaedia of rehabilitation that the Center for International Rehabilitation Research Information and Exchange (CIRRIE) and the *Institut de réadaptation en déficience physique de Québec* (IRDPQ) are currently producing will fill an information gap. It will be linked to other rehabilitation websites. (See http://cirrie.buffalo.edu/encyclopedia/)

Rehabilitation as a clinical system: phases

From the coma phase up to the social integration phase—that is educational, professional, family, occupational, etc.), rehabilitation's evaluations and interventions have to be managed. All phases must be planned, executed and evaluated properly. Every phase must be organized in collaboration with the client. With the complex and varied subjects of rehabilitation, a system needs to be implemented to properly perform all the actions that have to be undertaken. This is the clinical system that can be found in the best rehabilitation centers in objective-based intervention plans. This structured multidisciplinary system exists at the Rusk Institute of Rehabilitation in New-York, and at the IRDPQ. In many parts of the developed world, a truncated process takes place in medical rehabilitation departments of general hospitals. At best, hospitals specialized in traumatology include some of the phases of rehabilitation.

Rehabilitation as a clinical process: Evaluation and intervention

From the early phase–sometimes coma–to social participation, an adequate rehabilitation is reached through constant and proper evaluation, goal setting, and intervention

processes. Evaluation and intervention are the two main features of rehabilitation. The basic features that have to be evaluated in rehabilitation should be:

PREVENTION: Risk factors, diseases and traumas
REHABILITATION
—EVALUATION: BODY AND MIND FUNCTIONS-BODY AND MIND STRUCTURES-ACTIVITIES-PARTICIPATION-ENVIRONMENTAL FACTORS

—INTERVENTION : PHYSICAL INTERVENTIONS-PSYCHOLOGICAL INTERVENTIONS-SOCIAL INTERVENTIONS- ENVIRONMENTAL INTERVENTIONS

Rehabilitation as a multidisciplinary clinical process

Multidisciplinary teams are essential for rehabilitation to be minimally effective. There is not a single profession that possesses all the knowledge necessary to perform complete and adequate rehabilitation evaluations, interventions and management. This is why multidisciplinary practice by professionals with an equal evaluative and interventional power is essential to integral rehabilitation.

The application of those essential principles is not always easy in reality. An example of a complex situation involves clients that need a tenodesis. Whether they will need a tenodesis orthosis or a tenodesis chirurgical intervention might not be clear depending upon the evaluation that is made by an occupational therapist who is more likely to decide on the use of an orthosis, or by an orthopaedist, a physiatrist or a surgeon who might choose to perform surgery.

Conclusion

For any country, a well-designed, socially and environmentally accessible and complete rehabilitation system might be the ultimate demonstration of the capacity of a state to support the needs of their citizens in fields where professionals are usually the ones to fulfill those needs. Politically, the capacity and will to pass laws and regulations to support such a system and to state the rights of people with disabilities and their requirements (including the adaptation of the environment) in legislations might currently be the ultimate sign of advancement of a country.

In a more philosophical sense, rehabilitation might be the most advanced form of modern humanism. Rehabilitation aims at providing liberty, equality and brotherhood in a direct manner, that is, social participation for everyone, regardless of their physical and psychological differences.

Of course, in a more pragmatic way, autonomy through rehabilitation will be best achieved if it includes, not only the optimization of the body and mind capacities, but also social, family, school, work and environment integration, even if the political, economical and institutional contexts have to be modified. Prevention of all the factors that cause diseases and traumas that, in turn, trigger impairments is also a fundamental task for governments, rehabilitation professionals and consumers associations.

References

Albrecht GL, editor. 2005. Encyclopaedia of Disability. Thousand Oaks (CA): Sage Publications, Inc.

Blouin M, et al. 1995. Dictionnaire de la réadaptation, Tome 1 : Termes techniques d'évaluation, Laboratoire d'informatique et de terminologie de la réadaptation et de l'intégration sociale, Centre François-Charon, Les Publications du Québec.

Blouin M, et al. 1995. Dictionnaire de la réadaptation, Tome 2 : Termes d'intervention et d'aides techniques, Laboratoire d'informatique et de terminologie de la réadaptation et de l'intégration sociale, Centre François-Charon.

Dell Orto AE, Marinelli RP, editors. 1995. Encyclopaedia of Disability and Rehabilitation. New York: Macmillian Publishing.

Dufour M, Gedda M. 1997. Dictionnaire de kinésithérapie et de réadaptation. Maloine.

Feldesman W. 1997. Dictionary of Eldercare Terminology.

Fougeyrollas P, St-Michel G, Blouin M. 1989. Proposal for the Revision of the third level of the ICIDH. ICIDH International Network 2(1):9-32.

Helios. 1996. Functional Rehabilitation, Coordination towards good practice. European Commission.

Institut de réadaptation en déficience physique de Québec. Programme-cadre pour les adultes ayant subi un traumatisme cranio-cérébral.

Kagan Y. 1996. Dictionnaire de pratique gérontologique.

Kamenetz HL, Georgette. 1972. Dictionnaire de médicine physique de rééducation et de réadaptation fonctionnelles. Maloine Éditeur.

Kamenetz HL. 1983. Dictionary of Rehabilitatation Medecine, Springer Publishing Company.

Rusk H. 1972. A World To Care For, The autobiography of Howard A. Rusk, M.D. New York: Random House.

Ueda S, Okawa Y. 1996. Encyclopaedia of Rehabilitation Medicine. Tokyo: Ishiyaku Publishers.

Vergason GA. 1990. Dictionary of Special Education and Rehabilitation. Love Publishing Company.

Websites

- Center for International Rehabilitation Research Information and Exchange (CIRRIE): http://cirrie.buffalo.edu

- International Encyclopedia of Rehabilitation: http://cirrie.buffalo.edu/encyclopedia/

- Service international scientifique de réadaptation sur l'autoroute de l'information (SISRAI): http://www.med.univ-rennes1.fr/sisrai/

- International Index and Dictionary of Rehabilitation and Social Integration: http://www.med.univ-rennes1.fr/iidris/

- National Rehabilitation Information Center (NARIC)'s REHABDATA databases: http://www.naric.com/research/rehab

- World Health Organization, International Classification of Functioning, Disability and Health: http://www.who.int/classifications/icf/en/