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Scope of ICF in Special Education in Pakistan

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Abstract: Assessing the special needs of children studying in special schools is the most central aspect of special education. In Pakistan, no standardized method is being used for this purpose. ICF has emerged as a standardized method for measuring health and disability at both individual and population levels. A good deal of research has been carried out in the medical domain; nevertheless, the area of special education has been overlooked. This paper has explored the scope of ICF in the field of special education and has established links between ICF categories and curriculum areas, classroom activities and learning objectives for improving the quality of education. Further research has been recommended to find solutions to overcome the initial problems in adapting ICF framework in the field of Special Education in Pakistan.

Keywords: ICF, special education, disability, quality of education

Introduction

Assessing the special needs of children studying in special schools is the most central aspect of special education. It not only helps teachers to plan, devise and implement modified curriculum but also guides them to create congenial classroom environment, set individual educational plans, arrange suitable educational resources, adopt effective teaching strategies, and select appropriate evaluation methods to improve the learning gain of special needs children.

As a common practice, in Pakistan, children's special needs are assed on medical grounds. Parents themselves take their disabled child to special school where the school staff access their needs without following any standardized method for assessing the level of child's disability. Consequently, a very little detail about the special educational needs of the assessed child is available which is not sufficient for teachers to devise effective educational plans and arrange appropriate resources for such children. For improving the quality of special education, there is a strong need to introduce

standardized methods for assessing children with special educational needs so that teachers could have detailed information about the special educational needs of children to be taught in her/his class.

International Classification of Functioning, Disability and Health", commonly known as ICF (WHO, 2001), has emerged as a standardized method for measuring health and disability at both individual and population levels. ICF is a revised version of International Classification of Impairments, Disabilities and Handicaps (ICIDH) (WHO, 1980). ICF has been endorsed by the Fifty-fourth World Health Assembly (resolution WHA54.21). So far 191 Member States of the World Health Organization have agreed to adopt ICF as the basis for the scientific standardization of data on health and disability (Brundtland, 2002) and Pakistan is one of them. A brief detail about the key characteristics of ICF is given in section 2. ICF has introduced a new Biopsychosocial Model for disability & a classification system; discussed in section 3 & 4 respectively. ICF Qualifiers are one of the most significant aspects of ICF which facilitate professionals to measure the level of disability quantitatively. The details of these qualifiers are discussed in section 5.

Since the introduction of ICF, researchers have been exploring its practicality and effectiveness in various domains. Section 6 presents a review of the literature. The scope of ICF in special education is discussed in section 7 which is the key objective of this paper. Conclusion & Recommendations are discussed in section 8.

Key Characteristics of ICF

ICF is designed to measure health and disability at both individual and population levels. It provides a standard language to describe health, body structures & functions, activities, participation and other health related aspects. Taking into account the societal and environmental perspectives, it provides a body functioning and disability classification system applicable to all people irrespective of their health conditions. ICF does not differentiate disability on etiological grounds and makes no distinction between health conditions as 'mental' and 'physical' that affect the assessment of functioning and disability. It appreciates, wherever possible, the use of neutral language for expressing both positive and negative aspects of functioning and disability (WHO, 2002).

ICF and Disability Models

Disability Models are tools for defining impairment and providing a basis upon which government and society can devise strategies for meeting the needs of disabled people For example, Medical Model, known as Biological-Inferiority or Functional-Limitation Model, considers disability as a result of an individual person's physical or mental limitations. In Expert/Professional Model, an offshoot of the Medical Model, professionals identify the impairment and its limitations and take the necessary actions to improve the condition of the disabled person. The Tragedy/Charity Model depicts disabled people as victims of circumstance, deserving of pity whereas Social Model views disability as a consequence of environmental, social and attitudinal barriers that prevent people with impairments from maximum participation in society. The Social Adapted Model, built upon the Social Model but incorporates elements of the Medical Model, accepts the significance of impairments but considers social and environmental major contributory factor towards disabled people conditions. The Economic Model looks at disability as a person's inability to participate in work and assesses the degree to which impairment affects an individual's productivity and the economic consequences for the individual, employer and the state. The Religious Model views disability as a punishment inflicted upon an individual or family by an external force (AMHCW, 2009; Wikipedia, 2008; UPAIS, 1976). One way or the other, all of the mentioned models were unable to offer a comprehensive and standardized method to identify the level of individual's disability.

ICF has introduced a flexible disability model called "The biopsychosocial model". The model provides a coherent view of different perspectives of health including biological, individual and social. The model views disability as an outcome of interactions between health conditions (diseases, disorders and injuries) and contextual factors. Contextual factors comprises of external environmental factors and internal personal factors. External environmental factors include social attitudes, architectural characteristics, legal and social structures, as well as climate, terrain and so forth. Whereas, internal personal factors include gender, age, coping styles, social background, education, profession, past and current experiences, overall behaviour patterns, character

and other factors that influence how disability is experienced by the individual (WHO, 2002).

The biopsychosocial model identifies three levels of human functioning (i) Body Functioning & Structure (ii) Activity (iii) Participation where '*Body Functions'* are physiological & psychological functions of body systems, '*Body Structure'* are anatomical parts of the body such as organs, limbs and their components; '*Activity'* is the execution of a task or action by an individual and '*Participation'* is involvement in a life situation. Disability therefore involves dis-functioning at one or more of these three which are defined as views as 'Impairments', 'Activity Limitations' and 'Participation Restrictions'. '*Impairments'* are problems in body function or structure such as a significant deviation or loss. '*Activity Limitations'* are difficulties an individual may have in executing activities and '*Participation Restrictions'* are problems an individual may experience in involvement in life situations make up the physical, social and attitudinal environment in which people live and conduct their lives (WHO, 2002).

ICF Classification System

ICF provides a hierarchical domain structure and a coding scheme for the classification body functioning & disability. The domains are arranged in Chapters with second, third and fourth level. A list of top level chapters is shown below, for complete listing is available at ICF website (WHO, 2001).

b: Body Functions

B1: Chapter 1 Mental Functions

B2: Chapter 2 Sensory Functions And Pain

B3: Chapter 3 Voice And Speech Functions

B4: Chapter 4 Functions Of The Cardiovascular, Haematological, Immunological And Respiratory Systems

B5: Chapter 5 Functions Of The Digestive, Metabolic And Endocrine Systems

B6: Chapter 6 Genitourinary And Reproductive Functions

B7: Chapter 7 Neuromusculoskeletal And Movement-Related Functions

B8: Chapter 8 Functions Of The Skin And Related Structures

s: Body Structures

S1: Chapter 1 Structures Of The Nervous System

S2: Chapter 2 The Eye, Ear And Related Structures

S3: Chapter 3 Structures Involved In Voice And Speech

S4: Chapter 4 Structures Of The Cardiovascular, Immunological And Respiratory Systems

S5: Chapter 5 Structures Related To The Digestive, Metabolic And Endocrine Systems

S6: Chapter 6 Structures Related To The Genitourinary And Reproductive Systems

S7: Chapter 7 Structures Related To Movement

S8: Chapter 8 Skin And Related Structures

d: Activities And Participation

D1: Chapter 1 Learning And Applying Knowledge

D2: Chapter 2 General Tasks And Demands

D3: Chapter 3 Communication

D4: Chapter 4 Mobility

D5: Chapter 5 Self-Care

D6: Chapter 6 Domestic Life

D7: Chapter 7 Interpersonal Interactions And Relationships

D8: Chapter 8 Major Life Areas

D9: Chapter 9 Community, Social And Civic Life

e: Environmental Factors

E1: Chapter 1 Products And Technology

E2: Chapter 2 Natural Environment And Human-Made Changes To Environment

E3: Chapter 3 Support And Relationships

E4: Chapter 4 Attitudes

E5: Chapter 5 Services, Systems And Policies

ICF Qualifiers

ICF introduces the concept of "Qualifiers" for recording the presence and severity of a problem in functioning at biological, individual and social levels. A primary qualifier is used for recording the presence of impairment and the degree of the impairment of function or structure. The "Performance Qualifier" is used to code essential information about body function & structure, activities & participation and environmental factor whereas, the 'Capacity Qualifier' records an individual's ability to execute a task or an action (Participation). ICF provides a list of activities and participation for determining the 'gap' between capacity and performance of an individual. For example, if capacity is less than performance, then the person's current environment has enabled him/her to perform better than what data about capacity would predict; it means the environment has facilitated performance. On the other hand, if capacity is greater than performance, then some aspect of the environment is a barrier to performance. A separate qualifier has been provided for recoding record the distinction between environmental 'Barriers'.

Finally, ICF provides an additional qualifier 'Assistive Device' or 'Personal Assistance' which is used in conjunction with Capacity and Performance qualifiers. ICF believes that neither devices nor personal assistance alter the impairments, they may remove limitations on functioning in specific domains. This type of data is particularly useful to identify how much the functioning of an individual would be limited without assistive devices (WHO, 2002). These qualifiers have made ICF a standardized & flexible tool for recording information. None of the other models, discussed in section 3, allows professionals to collect such comprehensive information about multiple aspects of individuals with special need.

ICF and the Research Community

Collection of reliable information about health & disability globally is an evident need for addressing core issues related to people with disabilities (UNSD, 2006). For this purpose, WHO devised a family of data collection tools – called "Family of Classification" (WHO-FIC) – for collecting internationally comparable data on various aspects of health and disability (WHO,2004; Madden, R., et. al., 2007). ICF is one of the most important data collection tools of this family. It has mainstreamed the experience of disability as a universal human experience and considers disability not just happens to only a minority of humanity, every human being can experience a decrement in health and thereby experience some disability. By shifting the focus from cause to impact, ICF places all health conditions on an equal footing allowing them to be compared using a common metric – the ruler of health and disability (Kostanjsek & Üstün, 2004). Diagnosis is another important aspect which has been discussed in recent literature is that it alone can not provide information about the level of functioning and disability which is required for planning and management purposes. ICF has made it possible to collect this vital information in a consistent and internationally comparable manner. Brundtland (2002) has defined ICF as an accurate tool to understand the health of a population and how an individual and his or her environment interact to hinder or promote a life lived to its full potential. Jette, et. al. (2003) have considered it as an essential tool for collecting internationally comparable data about population of people with disability and identifying and measuring effectiveness of provisions and services. They argue that ICD-101, another member of WHO-FIC, gives users an etiological framework for the classification, by diagnosis, of diseases, disorders and other health conditions whereas ICF classifies functioning and disability associated with health conditions.

Arguing about the practicality of ICF, Brundtland (2002) says, "Such a tool is important both to developing countries struggling to improve health conditions despite of

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[1] International Statistical Classification of Diseases and Related Health Problems

severe financial limitations, and to industrial countries working to limit costs and provide fair and responsive health services in a time of changing expectations among their populations." Vanleit, B. (2008) argued that for using ICF as an operational tool for international development requires highlighting the relationship between specific categories of body function impairments and the environmental factors that serve as barriers or facilitators in order to identify needed accommodations on the regional or national level.

Reviewing the practicality and effectiveness of ICF, the study of Rentsch, et al's (2003) has demonstrated encouraging results about the acceptance of ICF by the team members, improvements in communication and documentation as well as substantial gains in content and handling of rehabilitation conferences. The study claims that the implementation of ICF has improved the quality of interdisciplinary work processes and contributed to a more systematic approach to rehabilitation tasks by the team members. Another study (Coenen, 2006) validates the comprehensiveness of ICF core set for Rheumatoid Arthritis (RA) and found, from the patient perspective, the ICF-based approach the most appropriate technique for handling patients suffering from RA. However, the study advocates for the addition of some new categories, yet not included in the existing ICF core set for RA. Likewise, encouraging results have been reported in other studies like (Beckung & Hagberg, 2002), (Battaglia, 2004) and (Olusanya, 2004).

However, Bruyère (2005) concludes that the ICF is being used in a preliminary fashion to inform conceptual frameworks in research and for recoding data from other health classifications. The actual application of the ICF is as yet somewhat limited. In a WHO Family of International Classifications Network Meeting (Placek, 2004), Dr. Paul J. Placek urges for further research on the feasibility of broader adoption of the ICF framework for defining disability in North America. Giving his comments about ICF, Mr. Genara Rivera – the Adjunct Director of the Demographic and Social Indicators Division of the National Institute of Statistics and Informatics of Peru - says, "The ICF model provides the conceptualization of disability, body structure and function, activity and participation, and environment, nevertheless we are not yet ready to transition from the concepts to the operationalization of them." (Rivera, 2004). Many other studies like (Stucki, et al's, 2002), (Simeonsson, et al's, 2003), (Ogonowski, 2004), (Rusch, et. al.

2004) (Imrie, 2004), and (Okochi, 2005), (Zöchling J, 2006), (Stamm & Machold, 2007), (Kesselring, 2008) have found ICF an effective tool which need further research to make it more practical.

From the above literature review, we have learnt ICF has commonly been used by medical practitioners & researchers for developing policies, devising rehabilitation programs, and dealing with a range of public health related issues. The effectiveness of ICF in the field of special education has not been explored yet. There is a strong need to identify areas of ICF related to special education that could help to improve the quality of special education and determine how ICF could help to achieve the objectives of global agenda of inclusion. A profound research has to be carried out to establish links between ICF Categories and curriculum areas, classroom activities and learning objectives. In the next section we have linked special education related activities to ICF Categories to make ICF a functional tool for producing positive results in special education.

ICF in Special Education

Children with special needs are facing difficulties in getting education due to their impairments of body functions, activity limitations and participation restrictions and the severity and environmental factors. The usage of ICF tools in the educational setting for people with exceptionalities could play an effective role for imparting quality education and it could be helpful for educators and other related professionals to develop or modify curriculum for the children. For example, the ICF categories b110 Consciousness, b140 Attention, b144 Memory, b152 Emotional functions, b167 Language and b164 Higher level cognitive functions could be helpful for a class teacher to assess and evaluate the progress of a child and then develop his/ her Individual Educational Plan (IEP) and prepare class room activities. Similarly, for speech therapy and communication skills ICF categories d310: Communicating with -- receiving -- spoken messages, d315: Communicating with -- receiving -- non-verbal messages, d330 Speaking, d335 Producing non-verbal messages, d350 Conversation could facilitate a teacher to select appropriate methods of teaching communication skills.

Similarly, categories b2, b3 and b4 associate to Sensory Functions and Pain,

Voice and Speech Functions, and Functions of the Cardiovascular, Haematological, Immunological and Respiratory Systems respectively. The qualifiers of these categories could help the school administration, teaching staff and other related professionals to take appropriate measures, within the classroom and school premises, to avoid any mishap and could bring major changes for quality education. At the same time they could arrange appropriate resources/equipment/services which could help to optimize the learning gain of children. Occupational therapists could use categories s1 to s7 to record information which could help school administration and class teachers to arrange appropriate equipment to support the individual's physical conditions in an educational environment. Using this information teacher can devise physical educational plans that could help children to participate actively in the physical education classes.

Discussing about activity limitations & participation restrictions, a student may face difficulties in performing various activities due to certain environmental factors or due to his/her societal context e.g. cultural, religious or economic factors etc. In an educational setting it is very important for a class teacher and other staff to know about a child's activity limitations & participation restrictions. This information is extremely supportive to arrange appropriate resources, devise IEP and create suitable environment to eliminate, to a certain extent, those factors which hinder/undermine a child's progress and learning outcome as a whole. ICF category "d1" to d9 could be helpful to overcome activity limitations and participation restrictions. To measure the comprehension and concentration span and cognitive development of a child, categories d110: Watching, d115 Listening, d140: Learning to read, d145: Learning to write, d150: Learning to calculate (arithmetic), d175: Solving problems could be used to develop IEPs which ensure his/her better achievements in the entire field of cognition. Similarly, categories d2: with General Tasks and Demands, d210: Undertaking a single task and d220: Undertaking multiple tasks could help a teacher to devise activities for everyday tasks of a child with special educational needs more appropriately.

Environmental Factors, is another important area in special education as physical and social environment directly affecting the learning outcome of a child. Categories e3 and e4 deal Support and Relationships, Attitudes respectively. These categories could help teachers to arrange suitable individual and group activities and

create better classroom/school environment for students.

Conclusion & Recommendations

Assessing the special needs of children studying in special schools is the most central aspect of special education. As a common practice, in Pakistan, no standardized method for assessing the level of child's disability is being used. Consequently, a very little detail about the special educational needs of the assessed child is available for teachers to devise effective educational plans and arranges appropriate resources for such children. For improving the quality of special education, there is a strong need to introduce standardized methods for assessing children with special educational needs so that teachers could have detailed information about the special educational needs of children to be taught in her/his class.

ICF has emerged as a standardized method for measuring health and disability at both individual and population levels. ICF allows to record information on various aspects of the disability through its rich language which has been devised to represent the description of health and disability including impairments at the body and body parts level, person level activity limitations, and societal level participation restrictions. The study has found that a good deal of research has been carried out in the medical domain, addressing only one aspect of ICF; dis-functioning of body functioning and structure. The areas like activity limitations and participation restrictions have been overlooked. Realizing this need the paper has explored the effectiveness of ICF in the field of special education. In this paper, at a preliminary level, we have established links between ICF categories and curriculum areas, classroom activities and learning objectives for imparting quality of education. Nevertheless, further research is required to find solutions to overcome the initial problems in adapting ICF framework in the field of Special Education. Also further efforts will be needed to show if these theoretical findings are supported by empirical evidence.

The paper also recommends that the lack of awareness about ICF at all levels and the scarcity of ICF trained professionals could cause serious hindrances in introducing ICF in special education. For this purpose, serious efforts from governments

and international organizations are immediately required. In this regard, awareness campaigns, special trainings and incentive driven programs for professionals and mass community should be initiated at national level.

The training of professionals in Pakistan countries would be a potential problem which can be solved through the effective use of Information and Communication Technology like offering web based online training, distributing training CD's and videos, delivering seminars and workshops through video conferencing, etc. Such efforts will offer multifold strategic and monitory benefits to all. The use of Free and Open Source Software (FOSS) technologies would further intensify such benefits.

References

UNSD (2006) 'Human Functioning and Disability', United Nations Statistics Division. Retrieved from http://unstats.un.org/UNSD/Demographic/sconcerns/disability/default.htm

UN (1981). 'Resolutions adopted by the General Assembly 35/133. International Year of Disabled Persons', Retrieved from http://www.un-documents.net/a35r133.htm

UN (1982). 'United Nations World Program of Action Concerning Disabled Persons' Retrieved from http://www.un.org/documents/ga/res/37/a37r052.htm

UN (1993), 'Standard Rules on the Equalization of Opportunities for Persons with Disabilities', Retrieved from http://www.independentliving.org/standardrules/StandardRules.pdf

Madden, R., Choi, C., Sykes C. (2003) 'The ICF as a framework for national data: the introduction of ICF into Australian data dictionaries'. *Disability Rehabilitation*, 25(11- 12): 676-682.

UNSD (2008) 'United Nations Statistics Division-Home Page', Retrieved from http://unstats.un.org/unsd/demographic/ sconcerns/disability/

WHO (1980) 'International Classification of Impairments, Disabilities and Handicaps: a manual of classification relating to the consequences of disease'. World Health Organization, Geneva

WHO (2001) 'ICIDH-2: International Classification of Impairments, Activities and Participation', Retrieved from http://www3.who.int/icf/icftemplate.cfm?myurl=homepage.html&mytitle=Home%20Page

Brundtland, G. H. (2002) 'To Make a Difference Measure Difference with ICF: An Interview with Dr. Gro Harlem Brundtland', WHO Conference on Health and Disabilities.Retrieved from http://www.ministerosalute.it/dettaglio/pdPrimoPiano.jsp?sub=4&id=18&area=ministero &colore=2&lang=en

WHO (2002) 'Towards a Common Language for Functioning, Disability and Health: ICF - The International Classification of Functioning, Disability and Health', WHO/EIP/GPE/CAS/01.3. Retrieved from http://www.designfor21st.org/ documents/who_icf_2002.pdf

AMHCW(2009). 'Models of Disability: keys to perspectives, Alaska Mental Health Consumer Web', Retrieved from http://akmhcweb.org/ncarticles/ models_of_disability.htm

Wikipedia-The Free Encyclopedia (2008) 'The Social Model of Disability'. Retrieved from http://en.wikipedia.org/wiki/Social_model_of_disability

UPAIS (1976) 'Fundamental Principles of Disability, Union of the Physically Impaired Against Segregation' (UPAIS)/Disability Alliance Methuen, London.

Brundtland, G. H. (2002), Key Note Address, *WHO Conference on Health andDisability*, Trieste, Italy. Retrieved from http://www.who.int/directorgeneral/ speeches/2002/english/20020418_disabilitytrieste.html WHO (2004). 'Family of International Classification', World Health Organization. Retrieved from http://www.who.int/classifications/en/WHOFICFamily.pdf

Madden, R., et. al., (2007) 'World Health Organization Family of International Classifications: definition, scope and purpose', Retrieved from http://www.who.int/classifications/en/ FamilyDocument2007.pdf

Jette A.M., Haley S.M., Kooyoomjian J.T. (2003) 'Are the ICF Activity and Participation dimensions distinct?' *J Rehabil Med*. 2003; 35:145–149.

Vanleit, B. (2008). 'Using the ICF to address needs of people with disabilities in international development: Cambodian case study', Disability and Rehabilitation, Volume 30, Numbers 12-13, 2008 , pp. 991-998(8).

Kostanjsek, N., Üstün, B. (2004). 'ICF implementation in the real world', Who Family of International Classifications Network Meeting, Reykjavik, Iceland. WHOFIC/04.052. Retrieved from http://www.nordclass.uu.se/WHOFIC/ papers/reykjavik52.pdf

Rentsch, H. P., Bucher, P., Nyffeler, I. D., Wolf, C., Hefti, H., Fluri, E., et al., (2003) 'The implementation of the 'International Classification of Functioning, Disability and Health' (ICF) in daily practice of neurorehabilitation: an interdisciplinary project at the Kantonsspital of Lucerne, Switzerland', *Disability and Rehabilitation*, VOL. 25, NO. 8. Retrived from http://www.uwo.ca/fhs/rehab_sci/PDFs/Oct_15.pdf

Coenen, M., Cieza, A., Stamm, T. A., Amann, E., Kollerits, B. and Stucki, G. (2006) 'Validation of the International Classification of Functioning, Disability and Health (ICF) Core Set for rheumatoid arthritis from the patient perspective using focus groups', *Arthritis Research & Therapy*, Volume 8, Issue 4. Retrieved from http://arthritisresearch. com/content/8/4/R84

Beckung, E., Hagberg, G., (2002) 'Neuroimpairments, activity limitations, and participation restrictions in children with cerebral palsy', *Developmental Medicine and Child Neurology*, Vol. 44, Mac Keith Press.

Battaglia, M., Russo, E., Bolla, A., Chiusso, A., Bertelli, S., Pellegri, A., Borri, G., Martinuzzi, A.(2004) 'International Classification of Functioning, Disability and Health in a cohort of children with cognitive, motor, and complex disabilities'. *DevelopmentalMedicine and Child Neurology*, Vol. 46. Mac Keith Press.

Olusanya, B. (2004) 'Classification of childhood hearing impairment: implications for rehabilitation in developing countries', *Disability and Rehabilitation*, Volume 26, 2004.

Bruyère, S. M.; Van Looy, Sara, A.; Peterson, D. B.(2005) 'The International Classification of Functioning, Disability and Health: Contemporary Literature Overview', *Rehabilitation Psychology*. Vol 50, Issue 2.

Placek, P. J. (2004) 'Developing a North American Research Agenda for ICF', WHO Family of International Classifications Network Meeting. WHOFIC/04.037. http://www.nordclass.uu.se/WHOFIC/papers/reykjavik37.pdf

Rivera, G. (2004). 'Comments on the Proposed Purpose of a General Disability Measure', Brussels, Retrieved from http://www.cdc.gov/nchs/about/otheract/citygroup/Rivera_comments.htm#_ftn1

Stucki, G., Ewert, T., Cieza, A. (2002) 'Value and Application of the ICF in Rehabilitation Medicine', *Disability and Rehabilitation*. Vol. 24.

Simeonsson, R.J., Leonardi M., Lollar, D., Bjorck-Akesson, E., Hollenweger, J., Martinuzzi, A. (2003) 'Applying the International Classification of Functioning, Disability and Health (ICF) to Measure Childhood Disability'. *Disability and Rehabilitation*. Vol. 25.

Ogonowski, J., Kronk, R., Rice, C., Feldman, H.(2004) 'Inter-rater Reliability in Assigning ICF Codes to Children with Disabilities'. *Disability and Rehabilitation*. Vol.26.

Rusch, M., Nixon, S., Schilder, A., Braitstein, P., Chan, K., Hogg, R. (2004) Impairments, Activity Limitations and Participation Restrictions: Prevalence and Associations Among Persons Living with HIV/AIDS in British Columbia. *Health and Quality of Life Outcomes*. 2:46. Retrieved from http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=15350202

Imrie, R.(2004) 'Demystifying disability: A Review of the International Classification of Functioning, Disability and Health'. *Sociology of Health & Illness*, Vol. 26.

Okochi, J., Utsunomiya, S. and Takahashi, T. (2005) 'Health Measurement Using the ICF: Test-retest Reliability Study of ICF Codes and Qualifiers in Geriatric Care, Health' *Qual Life Outcomes*, 3: 46. Retrieved from http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1199614

Zöchling J, Grill E, Scheuringer M, et al.(2006) 'Identification of health problems in patients with acute inflammatory arthritis, using the International Classification of Functioning, Disability and Health (ICF)'. *Clin Exp Rheumatol*; 24:239-246.

Stamm, T. and Machold, K. (2007). 'The International Classification of Functioning, Disability and Health in Practice in Rheumatological Care and Research', *Current Opinion in Rheumatology*: Volume 19(2) p 184-189. Retrieved from http://www.medscape.com/viewarticle/551886

Kesselring , J. (2008) 'Developing the ICF Core Sets for multiple sclerosis to specify functioning', *Multiple Sclerosis*, Vol. 14, No. 2, 252-254.

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