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Dear Partners and Friends,

The ICF Research Branch at the Institute for Health and Rehabilitation Sciences in Munich, Germany, as well as at the Swiss Paraplegic Research in Nottwil, Switzerland, would like to thank you for your collaboration and engagement in the different projects and activities concerning the ICF. With your help the projects proceeded and succeeded in many ways.

This newsletter provides updates on new and ongoing projects as well as important announcements. A list of new publications is contained on the Appendix I, large figures are presented in Appendix II. For further information on our research work, please visit our website:

<http://www.icf-research-branch.org>

We are looking forward to your future interest and cooperation, and wish you a pleasant and successful spring,

Your ICF Research Branch Team

Announcements

- Consensus Conference ICF Core Sets for hand conditions
07.05.-09.05.2009, Guido A. Zäch Institute in Nottwil, Switzerland
- Consensus Conference ICF Core Sets for sleep
28.05.-30.05.2009, Guido A. Zäch Institute in Nottwil, Switzerland

1.) The ICF as reference for the evaluation of intervention studies in dementia (ICF – Effect)

Elisabeth Linseisen and Eva Esteban (Germany)



Aim of the project

The aim of this study is to analyze to what extent new instruments are necessary to detect patients' and caregivers' relevant endpoints in intervention studies regarding persons with dementia of the Alzheimer's type. Figure 1 (Appendix II) displays the process as well as the aim of the study.

Where are we now

Systematic Literature Review

We finalized the abstract screening from about 5500 articles from the last five years. About 20% of the articles will be included for further examination. The data extraction has already started using a database which was adapted

especially to the needs of our project. The first extractions were done twice for quality-assurance. Further necessary adjustments to the database were done during this phase.

Personal Interviews

The pre-tests as well as first interviews with patients and caregivers were accomplished. They show that adaptations in using the questions of the semi-structured interview are required. Eventually, further changes will be necessary during the interview phase, which is a usual for qualitative research.

Challenges

Some challenges occurred during the last months: the database for the data extraction had to be adjusted several times as the publications included are very heterogeneous in, for example, the study design. To intensify the process we decided to work in various phases of the literature review at the same time: abstract screening, ordering publications, data extraction and so on were done by several researchers simultaneously, which produced a high coordination effort. In addition, the recruitment of possible interviewees is more difficult than expected.

Personal assistance

Students from diverse disciplines have supported, and continue to support our project. Stefan Spenner, who is a psychology student, did an internship and worked intensively on the literature review and the transcription of pretest interviews during February and March. Andra Spudeit, who is physical therapist, will perform her bachelor thesis in applied health science at the University of Applied Sciences in Magdeburg, Germany, based on the data collected in this project. Finally, Natascha Kolland, who is a nurse and doing her bachelor in nursing education, is transcribing many of the interviews and will

support the project team in data extraction and linking the information extracted from interviews and the literature to the ICF.



Stefan Spenner



Andra Spudeit



Natascha Kolland

Any comments and questions regarding the project are welcome, please contact the project coordinators in Munich:

Elisabeth.Linseisen@med.uni-muenchen.de or
Eva.Esteban@med.uni-muenchen.de

2.) The use of the ICF Core Sets for medical reports of the German national pension insurance of patients with low back pain (LBP) and chronic widespread pain (CWP)

Michaela Kirschnek (Germany)



The aim of the project is to analyse 600 medical reports (300 LBP and 300 CWP) from the German national pension insurance. The constructs of the 136 medical reports have already been linked to the ICF language and compared by specialized physicians from the German national pension insurance and members of the Institute for Health and Rehabilitation Sciences in Munich. About 10 % of constructs from the remaining 400 medical reports have been entered into the database by Kathrin Ecker and Philip Quinones, student research assistants.

Meike Schwarz, physical therapist, is supporting the project during an internship in April for 4

weeks.

The project was presented at the 7th ICF - User - Conference in Münster, Germany, on March 11th.

Furthermore the article “The use of the ICF Core Sets for medical reports of the German National Pension Insurance of patients with low back pain and chronic widespread pain” M. Kirschneck, A. Winkelmann, I. Kirchberger, A. Gläbel, T. Ewert, G. Stucki, A. Cieza, was published in November in the journal “Das Gesundheitswesen”, 2008 Nov;70(11):674-8. Epub 2008 Nov 27.

For further information, please contact:
Michaela.Kirschneck@med.uni-muenchen.de

3.) Development and evaluation of an ICF-based patient education for stroke patients

Carla Sabariego (Germany)



We are happy to inform you that we are now in the implementation phase of the project. In this phase stroke patients are recruited to perform the ICF-based patient education program in cooperation with different clinics.

Our team is supported by a new member, Mrs. Andrea Barrera, since February 2009. She is an experienced psychologist and will work on the project by implementing the patient education program in the cooperation clinics.



In the meantime the manual of the ICF-based patient education program was developed based on lessons learned in the pilot test of the study. In addition, a publication about the development of the ICF-based patient education, and the results of the pilot test, is in preparation. We also had the opportunity of presenting our study and the results of the pilot study of the program at the “7. ICF-User-

Conference in Mönster, Germany, on March 11th. We have so far recruited eight cooperation clinics in the region of Bavaria and are still looking for two additional cooperation clinics. At this point we would like to express our sincere gratitude to all cooperation clinics for their engagement: Fachklinik Kipfenberg, RehaZentrum Nittenau, Klinikum Passauer Wolf, NeuroKom Isarwinkel, Medical Park Loipl, Fachklinik Herzogenaurach, Klinikum am Europakanal and Klinikum Bad Neustadt.

If you require further information about the project or if you would like to be a cooperation centre, please do not hesitate to contact Carla Sabariego, leader of the project:

Carla.Sabariego@med.uni-muenchen.de

4.) ICF Core Sets for Hand Conditions

Sandra Kus, Michaela Coenen (Germany)



It is our pleasure to inform you that we are about to finalise the preparatory studies conducted within the phase 1 of the project. At this point, we would like to express our sincere gratitude to all parties concerned for their cooperation and enthusiasm.

Systematic review

We extracted data from 207 included full text articles. In total 2468 parameters and 140 different measures / assessment instruments have been identified. The linking process and the data analyses of the retrieved data will be completed in April 2009.

Qualitative study

Ten focus groups (59 participants) have been conducted at five different study centres in Germany. The linking process of the data collected from the patient perspective has already been completed.

Expert survey

With the expert survey we collected data from 192 hand experts coming from 38 different countries in six different WHO regions. In total the health professionals gave 5731 statements. The linking process of the expert's answers has been completed.

Cross-sectional empirical study

Up to now, 203 patients have been interviewed in the empirical study. The data collection will be completed in April 2009.

ICF Consensus Conference

The International ICF Core Set Consensus Conference will be held at the Guido A. Zäch Institute in Nottwil, (Switzerland) from May 7th to 9th, 2009. We invited 23 experts from 22 countries to take part in the consensus process. The selected experts will agree on the ICF categories to be included in the ICF Core Sets for Hand Conditions.

For further information please contact Dr. Michaela Coenen or Sandra Kus:

Michaela.Coenen@med.uni-muenchen.de

[Sandra Kus: Sandra.Kus@med.uni-muenchen.de](mailto:Sandra.Kus@med.uni-muenchen.de)

5.) Multidisciplinary Research Network on Health and Disability in Europe (MURINET)

Cristina Bostan (Germany)



The MURINET EU projects are still in progress. Both MURINET fellows are working on methodological projects for members of the MURINET team and ICF researchers.

Cristina Bostan is performing statistical analyses using data collected in studies which have used the ICF, such as the European Coordination Action MHADIE “Measuring Health and Disability in Europe: supporting policy development”. She is investigating the change of the three subscales from SF-36 survey (Mental Health, Physical Health and General Health) and the WHODAS II, using mixed models and general estimation equation.

Nora Fayed will complete her fellowship on April 15, 2009. She expects to publish her contribution to the linking rules in June and July of 2009. The systematic review of papers that link to the ICF was completed and the updated linking guidelines will be published as a conceptual paper as well as a practice paper. Nora expects to continue her partnership with the Munich team for her PhD which will focus on quality of life measures in children. The systematic review completed in Munich for the purpose of finding commonly used measures in childhood research will form the first chapter of her PhD. Nora says that she has had a wonderful experience at the WHO collaborating centre in Germany and she wishes to thank all her colleagues for their guidance assistance and friendship.



For any further inquiries about the MURINET projects please contact Cristina Bostan: cristina.bostan@med.uni-muenchen.de

6.) ICF Core Sets for Traumatic Brain Injury

Sara Laxe (Spain)



As you may know from other Newsletters, the Institute Guttmann, Hospital for Neurorehabilitation (Spain) is leading the development of the ICF Core Sets for Traumatic Brain Injury (TBI) in cooperation with the ICF Research Branch in Munich (Germany).

The first phase is currently being developed and the four studies that are being conducted to gather evidence for the consensus conference are progressing well.

The concepts obtained from the systematic literature review have been retrieved and are being linked to the ICF categories according to the linking rules. Results are expected to be reported soon.

An empirical study is being conducted in cooperation with the University of Malaya (Dr. Rameezan), the Italian Brain Injury Network (Dr. Aiachini), the Republic of Slovenia Institute for Rehabilitation (Dr. Grabljevic), the Ullevål University Hospital from Oslo (Dr. Bautz Holter) and the Royal Rehabilitation Centre Sydney from Australia (Dr. Tate). More than 300 patients have already been included and the data retrieval is expected to be gathered at the end of this month.

Patient interviews and focus groups are being performed by the Spanish and Norwegian groups in order to gather information from the patient or his/her family's perspective.

We are happy to inform you that the paper describing the project has been published under the name of “Developing Core Sets for Persons with Traumatic Brain Injury based on the International Classification of Functioning, Disability, and Health”. Bernabeu M, Laxe S, Lopez R, Stucki G, Ward A, Barnes M, Kostanjsek N, Reed G, Tate R, Whyte J, Zasler N, CiezaA, Neurorehabil Neural Repair. 2009 Feb 12. [Epub ahead of print].

In order to promote the use of ICF by TBI professionals, an oral communication under the title of “Identification of problems of patients with Traumatic Brain Injury based on the International Classification of Functioning, Disability and Health” will be presented at the 2009 ISPRM Congress that is going to be hold in Turkey.

For any additional information, please do not hesitate to contact us. Sara Laxe MD, MS: slaxe@guttmann.com or

Raquel Lopez, MSt; Montserrat Bernabeu, MD: tbi_icf_core_sets@guttmann.com

7.) ICF Core Set Development for Persons with any kind of sleep disorder

Felix Gradinger (Switzerland)

Excerpt from a narcoleptic patient in one of our focus groups:

„...I did not have *my coming-out* yet, I just said *I must sleep. No one in the office* knows that I have this problem. *I am very open, I say: I am doing my power-napping* - please do not disturb. *Some of them even approve* of this.“



Introduction and aim of the project

Sleep disorders may be the main and only clinical presentation in a patient, or a symptom or sign of another health condition like spinal cord injury, chronic widespread pain and depression. Patients in all different health care situations – acute, rehabilitation and community – may suffer from sleep disorders. Irrespective of the clinical context and the health-care situation in which sleep disorders manifest themselves, an in-depth understanding, systematic consideration and solid description of the functioning-related problems associated with sleep disorders are necessary.

Therefore we are developing and implementing ICF Core Sets for Sleep Disorders which will support clinicians, researchers, insurers, policymakers, and other stakeholders in systematically assessing symptoms, functional limitations and quality of life in order to optimize the management of persons with any kind of sleep disorder.

Methodology/Preliminary Sample

The ICF Core Sets for Sleep will be defined during a *Consensus Conference* in Nottwil, Switzerland, from *28th-30th of May 2009*, based on the evidence derived from research components of the preparatory phase of preliminary studies: a) an expert survey with 123 health professionals from different sleep-related disciplines worldwide; b) a systematic literature review and subsequent linking of 107 outcome measures used in sleep medicine practice and research; c) a qualitative study using 6 focus groups and individual interviews of 28 people with sleep disorders; and d) a multicentre, cross-

sectional study involving 100 persons with sleep disorders conducted in three sleep centres in Switzerland (University Hospitals Zurich, Berne, Clinic Barmelweid). The preparatory phase will be concluded with a second phase in which the ICF Core Set for Sleep will be tested and validated in clinical practice (EU-Grant Application submitted).

Presentations & Publications

Stucki, A et.al (2008) Developing ICF Core Sets for persons with sleep disorders based on the International Classification of Functioning, Disability and Health. *Sleep Med.* 2008 Jan;9(2):191-8.

Grading, F. et al. (2008). Identifying the concepts contained in health status measures in sleep medicine practice and research using the International Classification of Functioning, Disability and Health as a reference.*, *J Sleep Res* 17 (Suppl. 1), 178.

*Presented at the 19th Congress of the European Sleep Research Society ESRS, SECC Glasgow, 9.-13. Sept. 2008, Session: Sleep and Medical Disorders

“Use of International Classification of Functioning, Disability and Health (ICF) to describe patient-reported functioning in Sleep Related Breathing Disorders and identification of relevant environmental factors”*/ **

* Presented at the 9th World Congress on Sleep Apnea, WCSA09 Seoul, 25.-28. March 2009, Poster Session: ‘Sleepiness, Cognition, Driving, Social Issues’; PO96; March 27; 15:00-16:00h

**Presented at Gemeinsame Jahresversammlung Schweizerische Gesellschaft für Pneumologie (SGP), Davos, Schweiz 16./17. April 2009.

disorders – patients‘ perspective” *

* Presented at the 2. Schweizer Tag der Narkolepsie, Aarau, 26./27.02.09

Cooperation Partners

The Human Functioning Science Division of Swiss Paraplegic Research at the Guido A. Zäch Institute (GZI), Nottwil Switzerland.

The ICF Research Branch of the Collaboration Centre of the Family of International Classifications (DIMDI, Germany) at the Ludwig-Maximilians University in Munich

The Classification, Assessment and Standards (CAS) Team at the WHO

The World Association of Sleep Medicine (WASM)

For further information please contact Felix Grading: felix.gradinger@paranet.ch
ICF Research Branch, site: Swiss Paraplegic Research, Nottwil, Switzerland



Conference Swiss Narcolepsy Society, May 2008, left: Felix Gradinger, right: Swiss cooperation partner Prof. Dr. med. Johannes Mathis (Neurology, Inselspital Bern)

“ICF Core Sets for narcolepsy and other sleep

8.) Implementation of the ICF in rehabilitation practice

Alexandra Rauch (Switzerland)



Since the development of the ICF and its worldwide acceptance as the framework for the description for functioning and disability, the implementation of the ICF in rehabilitation practice has been a major challenge. In preliminary work, ICF Core Sets and ICF Tools (among these the ICF Functioning Profile) have been developed and applied to case studies (www.icf-casestudies.org). The next step is the implementation of the ICF tools into daily routine.

A project to evaluate the implementation of the ICF Functioning Profile into rehabilitation practice was performed at Swiss Paraplegic Research in cooperation with the Swiss Paraplegic Centre. In a three week, in-patient rehabilitation program for adolescents with spina bifida and cerebral palsy the ICF Functioning Profile was used to assess functioning state, to set rehabilitation goals, to plan intervention targets and to evaluate the outcome in functioning.

For each patient, functioning profiles could be created before and at the end of the rehabilitation program, which allowed the comparison of the functioning states at the different time points (figure 2, Appendix II). The data collection also allowed group analysis of the functioning profiles (figure 3, Appendix II). In addition, data about rehabilitation goals and intervention targets could be collected, which consequently allowed more insight into the rehabilitation management.

The evaluation of user-friendliness resulted in an increased goal-orientation and communication within the team. Nevertheless, the use of the

functioning profiles was time-consuming. Adjustments to the amount and specification of ICF categories used in the ICF Functioning Profile need to be done in the future. Furthermore, the ICF Qualifiers should be used with a percentage scale from 0 - 100 instead the 0-4 scale to increase the sensitivity to measure changes in the functioning states.

The lessons learned from this study will contribute to further improvement of the ICF Tools and consequently their implementation into rehabilitation practice.

For further information please contact: Alexandra.Rauch@paranet.ch

For further information about the ICF Tools please read:

Rauch A, Cieza A, Stucki G: How to apply the International Classification of Functioning, Disability and health for rehabilitation management in clinical practice. *Eur J Rehabil Med* 2008; 44:329-42.

9.) Evaluation of the introduction of the ICF as a clinical tool in the Swiss Paraplegic Clinical Centre – an employee attitude survey

Jan Reinhardt, Anke Scheel (Switzerland)



An ICF-based rehabilitation was established at the Swiss Paraplegic Centre (SPC) in 2004. The focus of the SPC is the rehabilitation cycle, which implies processes of assessment, assignment, intervention and evaluation. Special tools like an ICF-based ward

round and ICF-based forms have been introduced in the SPC. Once implemented, the ICF-based process of rehabilitation needs to be evaluated. The objectives of the employee survey were, firstly, to assess knowledge, attitudes and opinions of the employees of the SPC who use the ICF for reporting on patients' functioning; secondly, to uncover education and training needs; and thirdly, to adapt and reevaluate the ongoing education and training program of the SPC in light of these needs.

A first employee attitude survey was conducted in March 2008. The questionnaire was completed by 202 employees. Many of the answers showed differences between professions. It became evident, for example, that the different professionals had different levels of awareness of the ICF before getting involved in the ICF-based rehabilitation in the SPC. While about 50% of the participating occupational therapists and physical therapists had learned about the ICF as a part of their professional preparation, this was only the case for a minority of physicians and nurses. Concerning attitudes and opinions about the ICF, 65% of participants agreed that problems of patients can be identified comprehensively thanks to the ICF and 62% considered the ICF a useful tool. Difficulties were seen at the organizational level. Only 20% agreed that the introduction of the ICF-based rehabilitation had improved the organizational structures and 60% said that the ICF made for a higher documentation effort. The application of the ICF was perceived to be problematic, since 39% lacked confidence using the ICF and 31% thought that the ICF was confusing.

Based on these results, a training program was developed and conducted in November 2008. A second evaluation is planned for spring 2009, where the effect of the training program will be

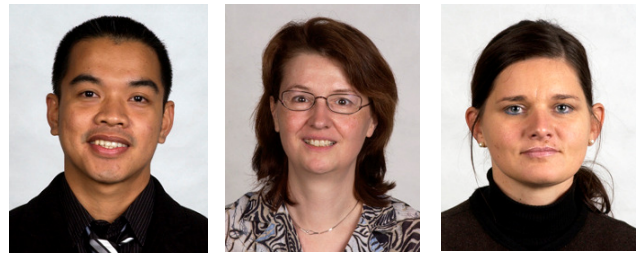
evaluated additionally.

For further information please contact:

Jan Reinhardt, ICF Research Branch at Swiss Paraplegic Research, Nottwil, Switzerland:
jan.reinhardt@paranet.ch or
Anke Scheel, Swiss Paraplegic Centre:
anke.scheel@paranet.ch

10.) ICF Core Set Development for Vocational Rehabilitation

Reuben Escorpizo, Monika Finger, Andrea Glässer (Switzerland)



Introduction and aim of the project

The consequences of accidents, injuries, and health conditions that prevent workers from engaging in gainful employment are a major and prevailing issue in the area of disability. Hence, the rehabilitation of vocational abilities plays a key role in bringing the injured worker back to work, while encouraging employment participation. Although the issue of vocational rehabilitation has been found to be crucial as it is a major life area for most people, there is no universally accepted description of functioning of those individuals who participate in vocational rehabilitation or return-to-work program.

Our aim is to develop an ICF-based core set of functioning that will help clinicians, researchers, insurers, policymakers, and other stakeholders contribute to the optimal rehabilitation and reintegration of injured workers from a broad spectrum of health conditions.

Methodology

The development process of the ICF Core Sets for vocational rehabilitation is similar to other core sets that have been developed to date. The preparatory phase consists of four separate and parallel studies: (1) systematic review of the literature, (2) expert survey, (3) empirical- cross-sectional study, and (3) qualitative- focus group interview. This phase is followed by a consensus conference (phase 1) and testing and validation of the first version of the core set (phase 2).

Project outcome

The first version of the Core Set will be drafted during the ICF Core Set Consensus Conference in 2010. In this conference, findings from the preparatory studies will be presented followed by a multi-stage decision process where participants will decide on the list of ICF categories to be included in the ICF Core Set for Vocational Rehabilitation. Testing and validation will be conducted on the first version of the core set.

Current status and progress

1. Prof. Jan Ekholm, a senior scientific adviser to the project and expert in vocational rehabilitation from Sweden, together with Dr. Kristina Schöldt Ekholm visited Nottwil in February 2009 to exchange ideas with the team. The next steps of the project were also discussed during that time.

2. The project has ethics approval from the canton of Aargau. Data collection for the cross-sectional study and focus group interviews will commence in Rehaklinik Bellikon in April 2009. Simultaneous ethics applications for the cantons of Zurich, Luzern, and Wallis, as well as for the German county of Bavaria, are being prepared.

3. Database for the systematic review of literature is ready for abstract screening.

4. Experts from all over the world have been contacted for the web-based survey. The database of experts will be ready by the end of April 2009 in preparation for the main survey.

The project is a collaboration between 1) the ICF Research Branch at Swiss Paraplegic Research, Nottwil, Switzerland, 2) the ICF Research Branch at the Institute for Health and Rehabilitation Sciences, LMU Munich, Germany 3) Classification, Terminology and Standards (CTS) of the World Health Organization, and 4) Rehabilitation Clinic Bellikon, Switzerland. The project is funded by the Swiss Accident Insurance- Schweizer Unfallversicherungsanstalt (SUVA).

For more information please contact Reuben Escorpizo, ICF Research Branch at Swiss Paraplegic Research, Nottwil, Switzerland: reuben.escorpizo@paranet.ch



Prof. Ekholm and Reuben Escorpizo in front of the Guido A. Zäch Institute in Nottwil, Switzerland

APPENDIX I

New Publications of the ICF Research Branches

Bautz-Holter E, Sveen U, Cieza A, Geyh S, Røe C.

Does the International Classification of Functioning, Disability and Health (ICF) core set for low back pain cover the patients' problems? A cross-sectional content-validity study with a Norwegian population.

Eur J Phys Rehabil Med. 2008 Dec;44(4):387-97.

PMID: 19002088 [PubMed - indexed for MEDLINE]

Bernabeu M, Laxe S, Lopez R, Stucki G, Ward A, Barnes M, Kostanjsek N, Reed G, Tate R, Whyte J, Zasler N, Cieza A.
Developing Core Sets for Persons With Traumatic Brain Injury Based on the International Classification of Functioning, Disability, and Health.

Neurorehabil Neural Repair. 2009 Feb 12. [Epub ahead of print]

PMID: 19221004 [PubMed - as supplied by publisher]

Boonen A, Braun J, van der Horst-Bruinsma IE, Huang F, Maksymowych WP, Kostanjsek N Dr, Cieza A, Stucki G, van der Heijde DM.

The ASAS/WHO ICF Core Sets for Ankylosing Spondylitis: how to classify the impact of AS on functioning and health.

Ann Rheum Dis. 2009 Mar 11. [Epub ahead of print]

PMID: 19282309 [PubMed - as supplied by publisher]

Cieza A, Hilfiker R, Boonen A, van der Heijde D, Braun J, Stucki G.

Towards an ICF-based clinical measure of functioning in people with ankylosing spondylitis: A methodological exploration.

Disabil Rehabil. 2009;31(7):528-37.

PMID: 18608418 [PubMed - in process]

Cieza A, Bickenbach J, Chatterji S.

The ICF as a conceptual platform to specify and discuss health and health-related concepts.

Gesundheitswesen. 2008 Oct;70(10):e47-56. Epub 2008 Oct 17. Review.

PMID: 18932116 [PubMed - indexed for MEDLINE]

Cieza A, Stucki G

The International Classification of Functioning Disability and Health: its development process and content validity.

Eur J Phys Rehabil Med. 2008 Sep;44(3):303-13. Review.

PMID: 18762740 [PubMed - indexed for MEDLINE]

Escorpizo R, Cieza A.

On "Physical therapist management..."

Rundell SD, et al. Phys Ther. 2009;89:82-90.

Phys Ther. 2009 Mar;89(3):308; author reply 309-10. No abstract available.

PMID: 19251711 [PubMed - indexed for MEDLINE]

Ewert T, Freudenstein R, Stucki G

ICF in social medicine.

Gesundheitswesen. 2008 Oct;70(10):600-12; quiz 613-6. Epub 2008 Oct 17. Review. German. No abstract available.

PMID: 18932121 [PubMed - indexed for MEDLINE]

Geyh S, Cieza A, Stucki G M D M S.

Evaluation of the German Translation of the Stroke Impact Scale Using Rasch Analysis.

Clin Neuropsychol. 2009 Feb 23:1-18. [Epub ahead of print]

PMID: 19235632 [PubMed - as supplied by publisher]

Gradingner, F. et al.

Identifying the concepts contained in health status measures in sleep medicine practice and research using the International Classification of Functioning, Disability and Health as a reference.

JSleepRes 2008, 17 (Suppl. 1), 178.

ICF Research Branch of WHO (DIMDI)

Institute for Health and Rehabilitation Sciences, Ludwig-Maximilians-Universität, Munich / Germany

ICF Research Branch at Swiss Paraplegic Research, Nottwil / Switzerland

Hilfiker R, Obrist S, Christen G, Lorenz T, Cieza A.

The use of the comprehensive International Classification of Functioning, Disability and Health Core Set for low back pain in clinical practice: a reliability study.

Physiother Res Int. 2009 Feb 4. [Epub ahead of print]

PMID: 19194959 [PubMed - as supplied by publisher]

Kirchberger I, Stucki G, Böhni UW, Cieza A, Kirschneck M, Dvorak J.

Towards an outcome documentation in manual medicine: a first proposal of the International Classification of Functioning, Disability and Health (ICF) intervention categories for manual medicine based on a Delphi survey.

Eur J Phys Rehabil Med. 2009 Feb 23. [Epub ahead of print]

PMID: 19238133 [PubMed - as supplied by publisher]

M. Kirschneck, A. Winkelmann, I. Kirchberger, A. Gläbel, T. Ewert, G. Stucki, A. Cieza,.

The use of the ICF Core Sets for medical reports of the German National Pension Insurance of patients suffering low back pain and chronic widespread pain.

Gesundheitswesen. 2008 Nov;70(11):674-8. Epub 2008 Nov 27.

PMID: 19039727 [PubMed - indexed for MEDLINE]

Kohler F, Cieza A, Stucki G, Geertzen J, Burger H, Dillon MP, Schiappacasse C, Esquenazi A, Kistenberg RS, Kostanjsek N.

Developing Core Sets for persons following amputation based on the International Classification of Functioning, Disability and Health as a way to specify functioning.

Prosthet Orthot Int. 2009 Jun;33(2):117-29.

PMID: 19367515 [PubMed - in process]

Rauch A, Cieza A, Stucki G.

How to apply the International Classification of Functioning, Disability and Health (ICF) for rehabilitation management in clinical practice.

Eur J Phys Rehabil Med. 2008 Sep;44(3):329-42. Review.

PMID: 18762742 [PubMed - indexed for MEDLINE]

Schwarzkopf SR, Ewert T, Dreinhöfer KE, Cieza A, Stucki G.

Towards an ICF Core Set for chronic musculoskeletal conditions: commonalities across ICF Core Sets for osteoarthritis, rheumatoid arthritis, osteoporosis, low back pain and chronic widespread pain.

Clin Rheumatol. 2008 Nov;27(11):1355-61. Epub 2008 Jun 3.

PMID: 18521651 [PubMed - indexed for MEDLINE]

Stier-Jarmer M, Cieza A, Borchers M, Stucki G; World Health Organization.

How to apply the ICF and ICF core sets for low back pain.

Clin J Pain. 2009 Jan;25(1):29-38. Review.

PMID: 19158543 [PubMed - indexed for MEDLINE]

Stucki A, Cieza A, Michel F, Stucki G, Bentley A, Culebras A, Tufik S, Kotchabhakdi N, Tachibana N, Ustun B, Partinen M.

Developing ICF Core Sets for persons with sleep disorders based on the International Classification of Functioning, Disability and Health.

Sleep Med. 2008 Jan;9(2):191-8. Epub 2007 Jul 17.

PMID: 17644416 [PubMed - indexed for MEDLINE]

Stucki G, Kostanjsek N, Ustun B, Cieza A.

ICF-based classification and measurement of functioning.

Eur J Phys Rehabil Med. 2008 Sep;44(3):315-28. Review.

PMID: 18762741 [PubMed - indexed for MEDLINE]

Tschiesner U, Linseisen E, Baumann S, Siedek V, Stelter K, Berghaus A, Cieza A.

Assessment of functioning in patients with head and neck cancer according to the International Classification of Functioning, Disability, and Health (ICF): A multicentre study.

Laryngoscope. 2009 Apr 8. [Epub ahead of print]

PMID: 19358200 [PubMed - as supplied by publisher]

Tschiesner U, Linseisen E, Coenen M, Rogers S, Harreus U, Berghaus A, Cieza A.
[Evaluating sequelae after head and neck cancer from the patient perspective with the help of the International Classification of Functioning, Disability and Health.](#)
Eur Arch Otorhinolaryngol. 2009 Mar;266(3):425-36. Epub 2008 Aug 26.
PMID: 18726562 [PubMed - in process]

Tschiesner UM, Rogers SN, Harreus U, Berghaus A, Cieza A.
[Comparison of outcome measures in head and neck cancer--literature review 2000-2006.](#)
Head Neck. 2009 Feb;31(2):251-9.
PMID: 19107947 [PubMed - in process]

Xie F, Lo NN, Lee HP, Cieza A, Li SC.
[Validation of the International Classification of Functioning, Disability, and Health \(ICF\) Brief Core Set for osteoarthritis.](#)
Scand J Rheumatol. 2008 Nov-Dec;37(6):450-61.
PMID: 18666026 [PubMed - indexed for MEDLINE]

Appendix II: Figures

Figure 1: Process and aim of the ICF-Effect project

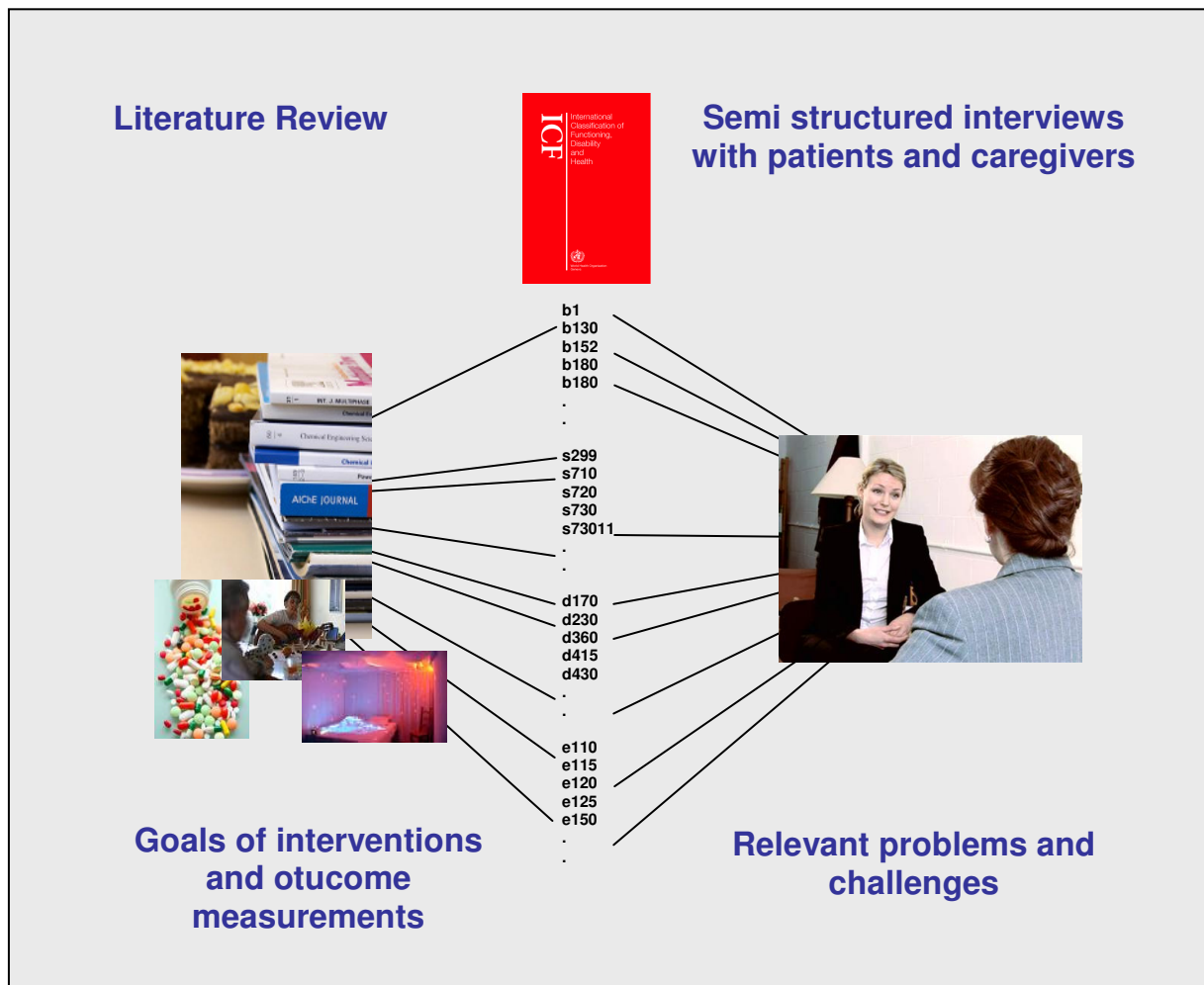


Figure 2: ICF Functioning Profile

Patient Name: XXX		Assessment					IZ	Goal relation	Goal value	Evaluation					
Birth date: 1993		ICF Qualifier								ICF Qualifier					
		0	1	2	3	4				0	1	2	3	4	
Program-Goal: INDEPENDENCE															
Cycle goal 1: Mobility															
Cycle goal 2: Self-Care															
Cycle goal 3: Personal responsibility															
1	b152 Emotional functions	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG3	2	2	[Bar chart: 0-2]				
2	b280 Sensation of pain	[Bar chart: 0-1]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
3	b440 Respiratory functions	[Bar chart: 0-2]					<input type="checkbox"/>			-1	[Bar chart: 0-2]				
4	b525 Defecation functions	[Bar chart: 0-1]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
5	b620 Urination functions	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
6	b640 Sexual functions	[Bar chart: 0-1]					<input type="checkbox"/>			-1	[Bar chart: 0-1]				
7	b710 Mobility of joint functions	[Bar chart: 0-2]					<input type="checkbox"/>			2	[Bar chart: 0-2]				
8	b730 Power of muscle functions	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG1	2	3	[Bar chart: 0-3]				
9	b735 Muscle tone functions	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG1	2	3	[Bar chart: 0-3]				
0	b810 Schutzfunktionen der Haut	[Bar chart: 0-1]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
1	s120 Structure of the spinal cord and related structures	[Bar chart: 0-2]					<input type="checkbox"/>			1	[Bar chart: 0-2]				
2	s430 Structure of the respiratory system	[Bar chart: 0-2]					<input type="checkbox"/>			1	[Bar chart: 0-2]				
3	s610 Structure of urinary system	[Bar chart: 0-1]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
4	s810 Structure of areas of the skin	[Bar chart: 0-1]					<input type="checkbox"/>			0	[Bar chart: 0-1]				
5	d230 Carrying out daily routine	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG2	2	2	[Bar chart: 0-2]				
6	d240 Handling stress and other psychological demands	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG3	2	2	[Bar chart: 0-2]				
7	d410 Changing basic body positions	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG1	2	2	[Bar chart: 0-2]				
8	d420 Transferring oneself	[Bar chart: 0-3]					<input checked="" type="checkbox"/>	CG1	2	3	[Bar chart: 0-3]				
9	d440 Fine hand use	[Bar chart: 0-4]					<input type="checkbox"/>			3	[Bar chart: 0-3]				
0	d445 Hand and arm use	[Bar chart: 0-4]					<input type="checkbox"/>			3	[Bar chart: 0-3]				
1	d455 Moving around	[Bar chart: 0-4]					<input type="checkbox"/>			4	[Bar chart: 0-4]				
2	d465 Moving around using equipment	[Bar chart: 0-3]					<input type="checkbox"/>			2	[Bar chart: 0-2]				
3	d470 Using transportation	[Bar chart: 0-3]					<input type="checkbox"/>			3	[Bar chart: 0-3]				
4	d520 Caring for body parts	[Bar chart: 0-4]					<input checked="" type="checkbox"/>	CG2	3	4	[Bar chart: 0-4]				
5	d530 Toileting	[Bar chart: 0-4]					<input checked="" type="checkbox"/>	CG2	3	4	[Bar chart: 0-4]				
6	d550 Eating	[Bar chart: 0-3]					<input type="checkbox"/>			3	[Bar chart: 0-3]				
7	d570 Looking after one's health	[Bar chart: 0-4]					<input type="checkbox"/>			4	[Bar chart: 0-4]				
8	d710 Basic interpersonal interactions	[Bar chart: 0-2]					<input type="checkbox"/>			2	[Bar chart: 0-2]				
9	d720 Complex interpersonal interactions	[Bar chart: 0-3]					<input type="checkbox"/>			3	[Bar chart: 0-3]				
0	d920 Recreation and leisure	[Bar chart: 0-3]					<input type="checkbox"/>			2	[Bar chart: 0-2]				
Environmental factors															
4		4 3 2 1 0 -1 -2 -3 -4								4 3 2 1 0 -1 -2 -3 -4					
5		[Bar chart: 0-2]					<input checked="" type="checkbox"/>	CG1	4	4	[Bar chart: 0-2]				
6	e110 Products an substances for personal consumption	[Bar chart: 0-2]					<input checked="" type="checkbox"/>	CG1	4	0	[Bar chart: 0-2]				
7	e115 Products an technology for personal use in daily living	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
8	e120 Products and technology for personal ...mobility	[Bar chart: 0-1]					<input checked="" type="checkbox"/>	CG3	2	2	[Bar chart: 0-2]				
9	e150 Design, construction and building products ...for public use	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
0	e155 Design, construction and building products ...for private use	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
1	e310 Immediate family	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
2	e340 Personal care providers	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
3	e355 Health professionals	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				
4	e580 Health services, systems and policies	[Bar chart: 0-2]					<input type="checkbox"/>			0	[Bar chart: 0-2]				

Figure 3: Changes of the amount of problems in the intervention targets within the group of adolescents with Spina Bifida and Cerebral Palsy at assessment and evaluation

