



NATIONAL INSTITUTE
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POSTER BOOKLET

First International Symposium: ICF education

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Scaling up: a vision for on-line ICF education

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Abstract

ICF education is occurring as an international patchwork of endeavours, frequently designed as one-off face-to-face events for niche audiences. The current supply is not meeting demand, and the utility of this ad hoc strategy may diminish as demand grows. It is time also to build on existing diverse resources and experiences, and to 'scale up'. Online education can provide a cost-effective strategy to help meet global demand, and reduce inequities in access to ICF knowledge. The authors outline a vision for online education, towards a collaborative, cost-effective and accessible network of resources, which will foster, inform and expand ICF use.

Unmet demand for ICF education and why it matters

Fourteen years after the publication of the ICF,¹ are we meeting the demand for education: about the ICF model; the coding rules and options; and applying the ICF for a range of purposes, in varied settings, and with diverse users?

The community of experts in the WHO's ICF network cannot keep pace with the global demand for ICF knowledge. A small survey of WHO-FIC members found that additional educational resources were required by well over half of the 20 respondents, for all categories of resources except introductory education.² Teachers in university and college classrooms are similarly challenged to meet local demands.

The World Report on Disability and the Disability Action Plan identify the ICF as part of the solution to global inequalities in health and disability.^{3,4} ICF education is key infrastructure for equipping communities worldwide in improving conceptualisation of health and disability, planning and delivering services, and developing the data needed to monitor progress.⁵ ICF education plays a critical role in shifting the emphasis from diagnosis to functioning and preparing the ground for collaborative, person-centred practice focussed on the participation of people with disability in their communities.

On-line education: a cost effective strategy for scaling up

Face-to-face education is costly in time, travel, and infrastructure. There are also opportunity costs: ICF experts are providing introductory education when interactive facilitation of 'implementation' is increasingly needed. On-line education can be **cost-effective**, for both the providers and the consumers.⁶ It is a **feasible solution for the target audiences**. Countries under-served by face-to-face education are also home to the majority of the one billion people with disabilities. Equity and regional development require online, accessible solutions to reach diverse communities. The internet and mobile technology revolution, in all areas of the world, facilitates knowledge sharing and skills development, unhindered by geographic location. **Input from educators across the world** can be incorporated, to enhance scope (e.g. to the range of topics in the ICF practical manual) and draw on a diversity of experiences in ICF use.



A vision for on-line education

A specific objective of on-line ICF education must be to reduce global inequities in access to knowledge. What factors must be considered in designing on-line resources that can achieve this goal?

Audiences: Health, social, education and disability service providers; students; policy makers; non-government organisations; disability advocates.

Purposes: Provide a gateway to a rich diversity of resources to equip users to apply ICF in clinical practice, policy, advocacy, statistical or research work.

Contents: Resources should cover at least: ICF basics and the 'big picture'; ICF and services (health, education...); Participation, policy, advocacy and service environment; Information and statistics; Planning an ICF application.

Varied resources and teaching strategies:

The mix of resources would include: recorded lectures; embedded audio/video recordings; interactive simulations; text with links to supporting resources. Diverse 'teaching voices' would include people with the lived experience of disability, people from a range of occupations and geographic regions. Students could 'test' themselves via: self-assessments; short answer questions; mapping exercises (assessment tools, data); coding exercises; analysis of a data sample; service design or redesign. On-line ICF education should enable peer-to-peer communication and learning, supported by input from moderators or mentors.⁷

Accessibility: Resources must be 'open access', free and accessible in terms of: language; disability accessible formats; suitability for varied hardware including phones, computers, tablets; curriculum content to suit all levels of learners.

Quality: Quality safeguards can include periodic reviews by ICF experts, students, practitioners, and disability stakeholders. Tracking of site usage, assessment scores, retention, and feedback data can also be used to evaluate quality.

References

Collaborative, interactive and inclusive – towards communities of practice:

The solution should be collaborative in design and inclusive in products. The development of on-line ICF education should use a 'community of practice' approach that capitalises on current willingness to collaborate on ICF development and education, and that engages and supports expert and consumer networks to innovate, implement, evaluate, and improve local educational efforts.



A pathway forward

A **collaborative network** approach is proposed for the development of a comprehensive on-line ICF education resource. This would draw on assets distributed throughout the network in the form of motivation, expertise and resources. While **some central resourcing** will be needed for software evaluation or development, a network approach means that a global resource can be achieved through **dispersed efforts** requiring smaller amounts of funding (and 'in kind' contributions), including enhancement of existing local resources. Network members would continue to develop resources for their own purposes, and would 'open up' these resources from their own web sites, accessed via links from a central virtual **gateway or portal**, through which users would gain access to the networked resources. The central portal, along with the searching and linking methods, and interactive elements aimed at resolving questions and promoting communities of practice, would be collectively owned by the Network. While all members of the Network would control their own resources, a Creative Commons agreement would likely still be needed.

A Network for ICF Collaborations on Educational Resources – NICER: providing free, online, accessible ICF education, collaboratively maintained, to foster, inform and expand ICF use

The process can begin with a 'network nucleus' — membership will grow over time.

First steps are:

1. Prepare a consultation document setting out key features of the project
2. Conduct a survey or EOI call to gauge feasibility, likelihood of cooperation, and willingness to share specific resources
3. Evaluate responses and plan next steps
4. Identify an initial linked pool of education resources and set up a simple prototype.

1. World Health Organization (WHO) 2001. *The International Classification of Functioning, Disability and Health*, Geneva, WHO; 2. Sykes CR 2014. Guest Editorial. *Physiotherapy* 97 (2011) 1–; 3. WHO and World Bank 2011. *World Report on Disability*, Geneva: WHO; 4. WHO 2014 . *Global Disability Action Plan 2014–2021*, Geneva: WHO; 5. WHO 2013 *How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF)*. Exposure draft for comment; 6. Kukulska-Hulme A 2012. How should the higher education workforce adapt to advancements in technology for teaching and learning? *The Internet and Higher Education*, 15(4) pp. 247–254; 7. Bornbaum CC, Day AMB, Izaryk K, et al. 2015. *Disabil Rehabil*, 2015; 37(2): 179–186.

Effects of a short training in using the ICF on perceived usefulness of the ICF
Helsinki, Finland

O102

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Abstract Effects of a 4-hour instructor-led training in using the ICF on perceived usefulness of the ICF in a randomized controlled trial in 76 students enrolled in the Master of Advanced Nursing Practice (MANP).

Introduction

Health care provisions aim to improve the health status of individuals by means of cure and/or care. Within the WHO’s conceptual model, cure is primarily focused on diseases and disorders in body functions and structures and care is primarily focused on activities and participation (Fig.1). The MANP educates nurses to become a nurse practitioner (NP), following the Dutch established competency profiles, in which the integration of cure and care is included. However, a clear scope and model that adequately cover the roles and position of NPs is currently lacking. The use of the conceptual model and the terminology of the ICF may be useful in the integration of cure and care. This study aimed to analyze the effects of a short instructor-led ICF-training on perceived usefulness of the ICF in MANP students in a randomized controlled trial.

Methods & Materials

The intervention group received a 4-hour instructor-led training in using the ICF. The control group did not receive ICF training. The content of the training included: a conceptual overview of using the concept of functioning in health care; basic concepts related to the ICF (conceptual model of health, components, categories, and qualifiers); ICF core sets; inking rules; and some simple clinical vignettes to explain what using the conceptual model and the standard terminology of the ICF entails. Primary outcome measure was perceived usefulness of the ICF. Secondary outcome measures were ICF-related knowledge, skills, and attitude. Data were collected using an ICF survey and learning assessment tool at baseline, immediately after the training, and at 3-months follow-up.

Results

Data of 56 students were included for analysis. Perceived usefulness of the ICF was significantly increased in the intervention group immediately after training ($p = 0.002$) but no longer at 3-months follow-up ($p = 0.054$). Attitude and knowledge related to the ICF were significantly increased in the intervention group at both post-training assessments ($p < 0.001$ to 0.02). Skills were not affected (Table 1).

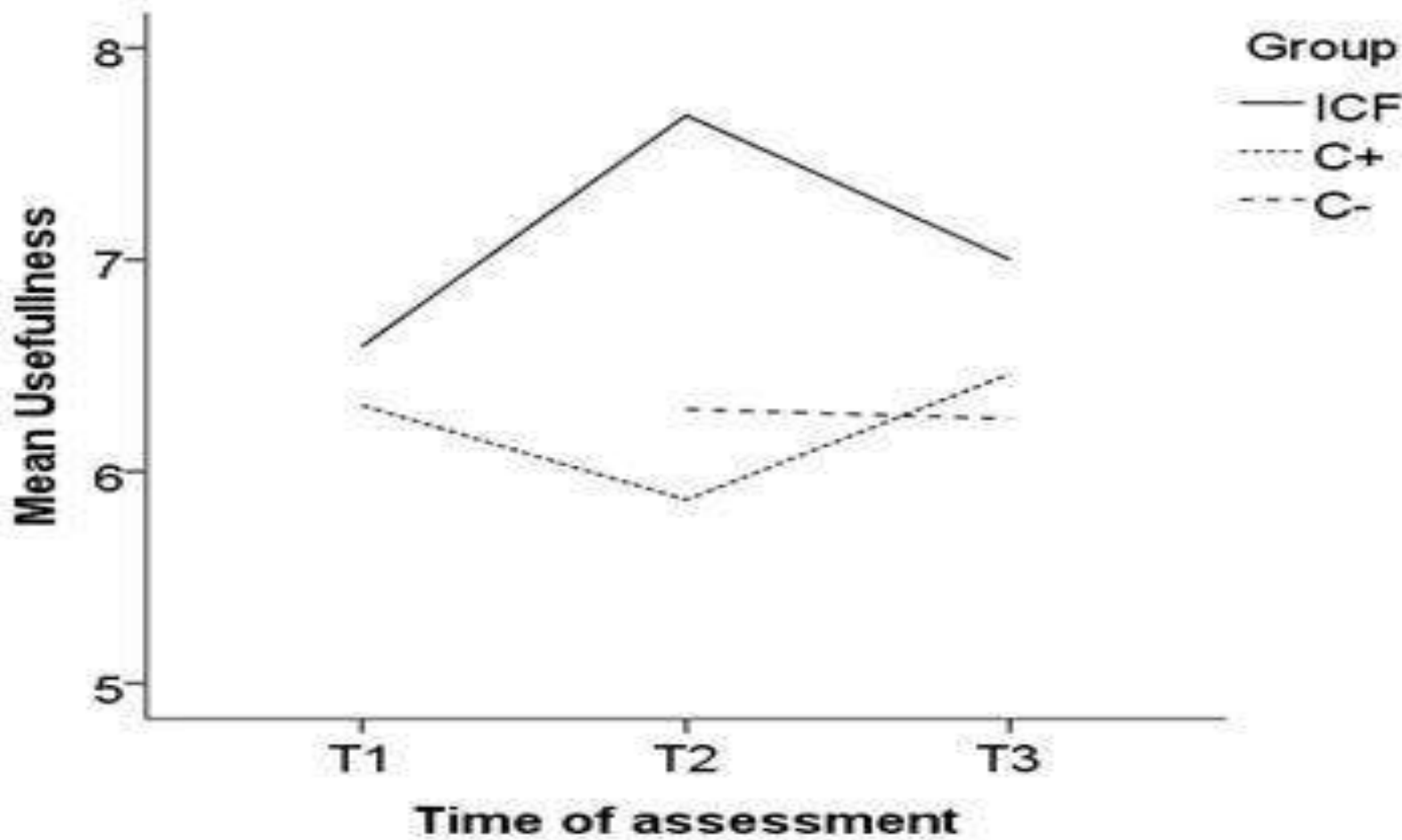


Figure 2. The mean usefulness score presented at baseline (T1), immediately after the intervention (T2), and at 3-months follow-up (T3). Higher scores indicate more usefulness. ICF, intervention group; C+, control group with pre-test; C-, control group without pre-test. Note: both control groups are presented separately; the results differ with respect to Table 1 in which both control groups were combined.

Conclusion

A short ICF training has a positive influence on perceived usefulness of the ICF, which is relevant for including ICF in the MANP curriculum. In addition, a positive attitude toward the ICF implicates support for directing the goal of health service interventions away from disease toward a broader scope of health care provisions and involvement in life situations.

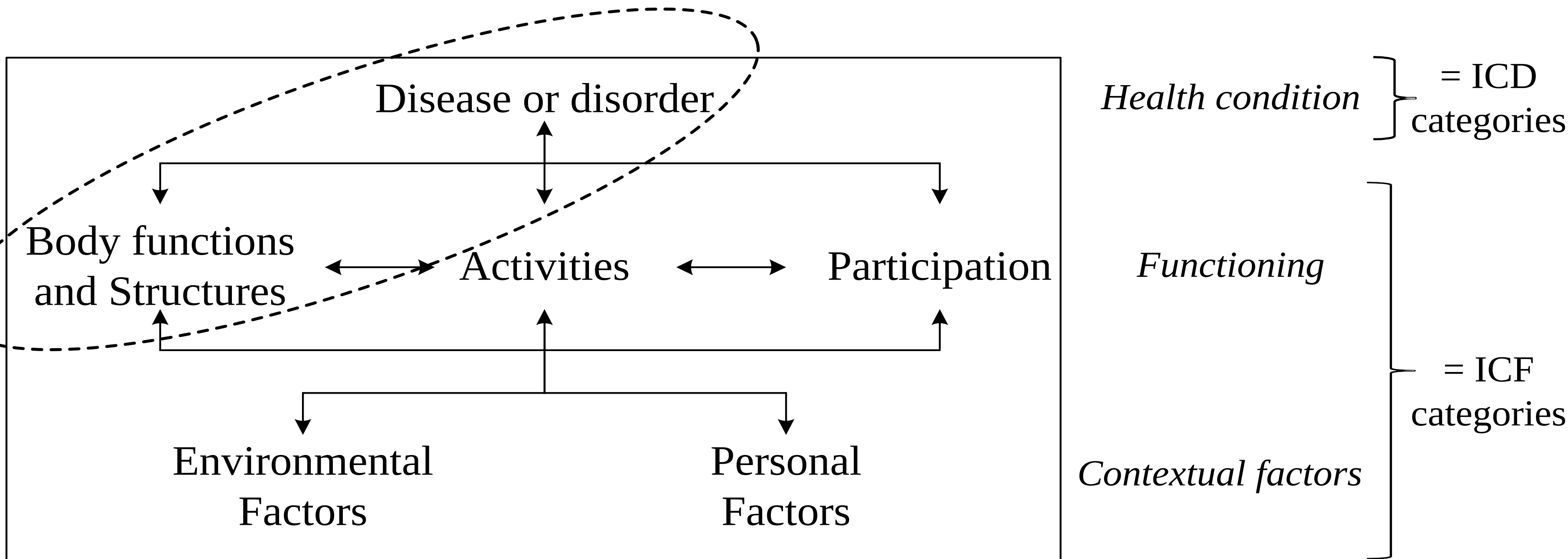


Figure 1. WHO’s conceptual model of health representing the interactions between the components (disease, body functions and structures, activities, participation, environmental and personal factors) of the health status. The partial perspective of health (oval) based on the biomedical model representing cure vs the comprehensive perspective of health (rectangle) based on the biopsychosocial model representing the intersection of cure and care. ICD: International Classification of Diseases; ICF: International Classification of Functioning, Disability and Health. Note: activities and participation are distinguished in the conceptual model but combined in the standard terminology of the ICF

Table 1. Outcome measurements of knowledge, skills and attitude at the 3 measurement points and comparison of the change scores between the measurements over time and effect size of change between the ICF group and the Control group

Scales	T1=Pre-test		T2=Post-test		T3=Follow up		Differences over time between ICF and C			
	ICF n=22	C+ n=16	ICF n=22	C n=32	ICF n=22	C n=32	Change		Effect size	
	mean (sd)	mean (sd)	mean (sd)	mean (sd)	mean (sd)	mean (sd)	T1-T2	T1-T3	T1-T2	T1-T3
Knowledge (range 0-15)	3.2 (3.0)	3.1 (3.4)	11.3 (1.4)	3.4 (3.7)	9.8 (2.6)	4.7 (4.3)	7.7 (0.8)*	4.7 (0.9)*	3.6	1.4
Skills (total) (range 0-38)	16.6 (5.0)	13.1 (2.7)	15.1 (3.8)	14.0 (4.1)	17.3 (4.0)	14.7 (3.8)	-2.2 (1.9)	0.4 (1.8)	-0.6	0.1
Functions (range 0-8)	3.4 (1.3)	2.6 (1.6)	3.6 (1.6)	3.3 (1.6)	3.1 (1.7)	2.3 (1.4)	-0.3 (0.6)	-0.6 (0.7)	-0.2	-0.3
Act. & Part. (range 0-21)	7.8 (2.7)	7.0 (2.3)	7.1 (2.7)	7.0 (2.5)	7.9 (2.7)	6.7 (2.3)	-1.2 (1.0)	0.3 (1.1)	-0.5	0.1
Environ. (range 0-9)	5.0 (2.6)	4.3 (2.4)	4.7 (1.8)	4.2 (2.2)	6.1 (1.2)	5.4 (1.9)	-0.4 (0.7)	0.5 (0.8)	-0.2	0.2
Attitude (total) (range 12-60)	31.2 (7.9)	32.4 (7.4)	41.7 (6.6)	30.4 (8.3)	35.7 (9.6)	30.0 (8.8)	12.1 (1.9)*	5.3 (2.2)*	2.1	0.7
Usefulness (range 2-10)	6.6 (1.3)	6.3 (1.5)	7.7 (1.4)	6.1 ¹ (1.8)	7.0 (1.5)	6.3 ¹ (1.7)	1.7 (0.4)*	0.4 (0.4)	1.4	0.3
Mastery (range 10-50)	24.6 (7.5)	26.1 (6.4)	34.1 (5.8)	24.3 (7.2)	28.7 (8.6)	23.7 (7.7)	10.4 (1.9)*	4.9 (2.0)*	1.9	0.7

Range scales: higher score means more knowledge, better skills or more positive attitude; ICF, intervention Group; C+, control group with pre test; C, control group; sd, standard deviation; se, standard error; * $p<0.05$ -value (2-tailed); d , Cohens’ d ; Note: both control groups are presented combined the results differ with respect to the results in Figure 2 in which both control groups were presented separately.

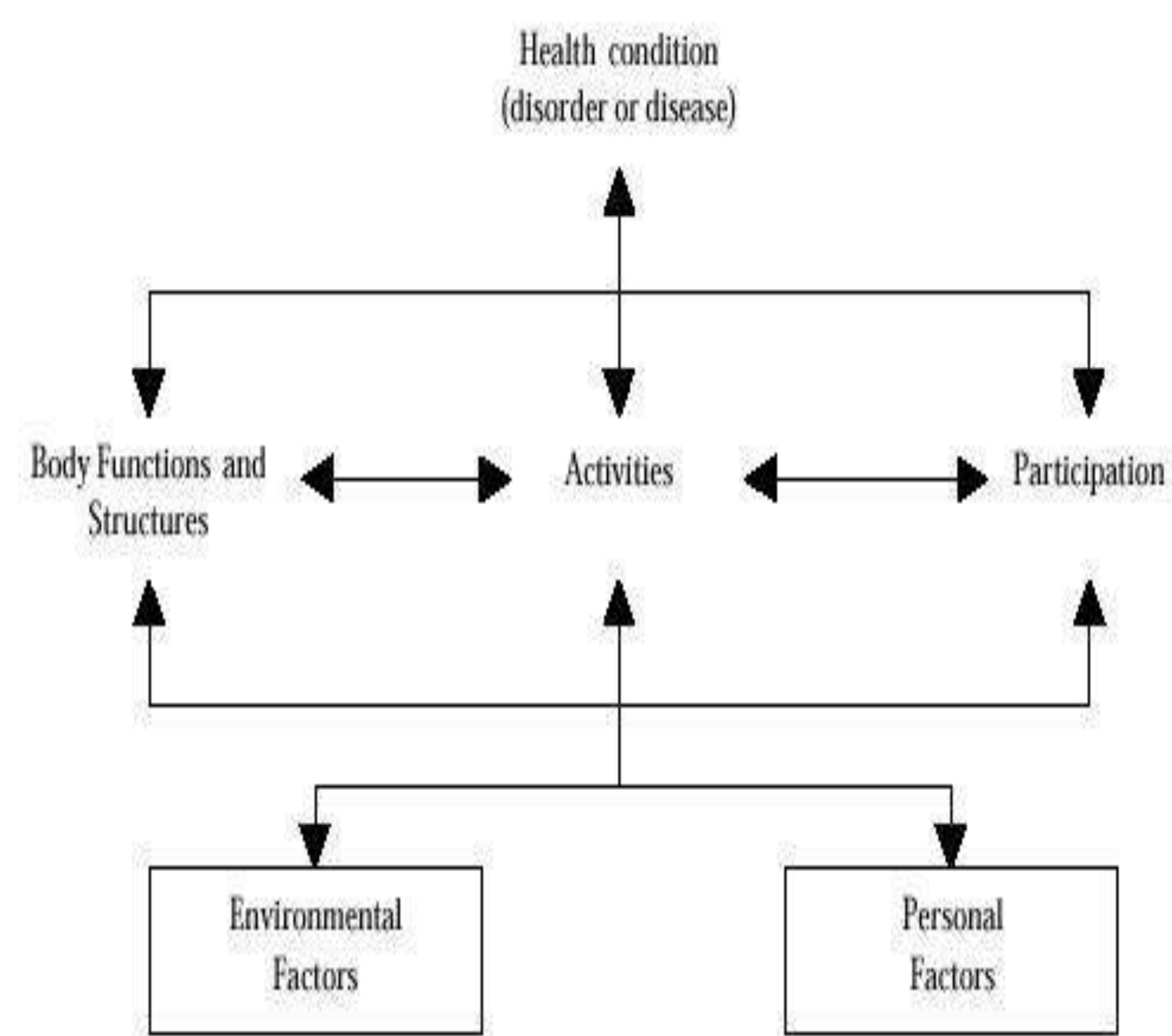
Development and implementation of a graduate-level, application focused ICF course to promote utilization in research and practice

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Introduction

The International Classification of Functioning, Disability and Health (ICF) is an international, multidisciplinary, consensus-driven framework and classification system of health and disability supported by the World Health Organization. The objective of this presentation is to introduce a graduate-level, application-focused ICF course that exposes students to the historical, theoretical and measurement principles of the ICF. The innovation of this course is that it's application-focused structure through peer and instructor mentorship. A strength of the course is the diversity of instructors to model different approaches to how the ICF can be applied in research and practice.

(WHO, 2001)



Results

To date, two cohorts of students have piloted the course since it's implementation in 2011. Results indicate that the course assisted students in applying the ICF into practice through instructor and peer mentorship interactive approach to learning. Student feedback through course evaluation also revealed that they appreciated the diversity of instructors to illustrate the multiple perspectives of applying the ICF. The interaction with mentors and their examples of different applications was critical to exploring how ICF can be applied in different situations. The diversity of health professionals enrolled in the course resulted in a wide array of student projects (8) and publications (3) that tapped into different areas of application for the ICF.

Methods & Materials

Traditional lectures, small and large group discussions (among peers and with instructors). The course consisted of an in-class phase and a project phase. The course introduction and Modules 1-4 are full-day five-hour format. Module 5 is an independent study related to the student's personal area of interest in research or practice guided by a chosen instructor.

Conclusions

The ICF has potential to improve communication and collaboration (through its universal concepts and language) among health professionals working within multidisciplinary teams in research and practice to impact health outcomes for patients. Thus, it is timely for clinicians and trainees working in health-related fields to incorporate its framework into practice and research. It is hoped that professional programs will model our approach to develop similar courses within their professional curriculum to build capacity for application of the ICF. Education and training through a combination of peer support and mentorship for health professionals in the use of the ICF could assist with facilitating its uptake.

Acknowledgements or Notes

Faculty and Staff in the School of Rehabilitation Science & CanChild Centre for Childhood Disability Research, McMaster University Canada. Deep thanks to all of the instructors and students within the ICF course.

ICF education for physical therapists: lessons learned since 2001

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Abstract A person's movement and functioning are the essential targets of physical therapy interventions. Measuring and monitoring changes in functioning are fundamental to the physical therapists records. As such the ICF is recognised as an important tool (WCPT endorsed the classification at its general meeting in 2003.) Physical therapist educators have been actively engaged with educating their students and peers about the ICF. The authors present the strengths and weaknesses of the ICF education they have delivered and consider how best to strengthen the abilities of physical therapists to integrate ICF into their practice and data collections. In conclusion the authors will consider the international imperatives driving the need for functional status information and how physical therapists can support the policy priorities.

Introduction

Over the last 14 years the authors have been teaching physical therapists and students about the ICF.

Audiences

International Congresses:

Approximately 400 people attended an introduction to ICF, a further 100 have attended workshops.

Africa: Physical therapists from Benin, Ethiopia, Ghana, Kenya, Malawi, Nigeria, Uganda and Zambia have attended workshops.

South Africa: ICF education has been included in the curricula of most entry level programmes

Korea: Introductory lectures for about 80 student physical therapists, workshops for about 120 physical therapists; a mix of clinicians, educators researchers and managers, and implementation workshops for about 60.

Taiwan: Introductory workshops for both physical therapist and mixed health professional groups (n=130) Specialised workshop for instructors of disabled riders.

Oman, Australia, Canada: mixed groups of health professionals including physical therapists

Purposes

The purposes of the education sessions have been to:

Introduce the classification

Given examples of application relevant to the profession

Enable the development of physical therapist appropriate clinical, research and management applications.



Results

Contents

The education of physical therapists has followed the ICF curriculum modules. The content has included:

- an overview of the principles and purposes for using the classification
- the model, structure, content, qualifiers and codes
- examples of ICF use by physical therapists.

More advanced workshops have included guidance on developing ICF based data collections using examples generated from the audience.

Strategies

A mix of didactic and interactive methods have been used.

Outcomes

Participants have :

- located their practice within the ICF framework
- identified ways in which the ICF principles may be applied within their own contexts
- considered how to evaluate and make changes to their practice
- established collaborative research projects
- shared resources
- developed standard approaches to assessment across specialties and settings
- improved curriculum design and clinical education experience
- facilitated student research design
- advised on translation of ICF and ICF tools
- established groups to exchange information on ICF application

Conclusions



Strengths

Education and application is profession specific

Involving more than one perspective, including a local perspective through team teaching has been important

Small group work for debating questions and gaining a common understanding of ICF applications that are locally relevant has been essential

Still needs work

- Knowledge translation
- Principles of data development
- Analysis of ICF based data

Whilst the education has been well received there remains the question of how to capitalise on introductory education and enhance practical and sustainable implementation of the ICF

The WHO global action plans for ageing, non-communicable diseases and disability are important drivers for data on functioning and physical therapists are in the prime position to collect it

Strategies to expand the provision of ICF education are discussed in companion posters to be presented at the First International Symposium: ICF education, 2015.

EMPLOYEE'S AWARENESS OF INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH (ICF) AT THE OULU UNIVERSITY HOSPITAL

Helsinki, Finland

O105



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Abstract The aim of this study was to describe the employee's state of the awareness of the ICF-framework at the beginning the process. The other main goal of this study was to identify most appropriate learning methods and tools to further plan the education and workshops for the rehabilitation professionals in order to enable systematic and successful ICF-implementation process

Introduction

In order to develop client-centered treatment and rehabilitation ICF-implementation process was started in the Oulu University Hospital. In this presentation we will report the first phase of the ICF-implementation process.

The paradigm of rehabilitation has changed now emphasizing the ecological model and empowerment. Working life requires more collaboration and broad view of functioning. To develop the practice of rehabilitation the professionals need a new integrated approach.

The Action research process will serve as a process evaluation and as a guideline for the implementation process. This will help to build specific actions and monitored steps that can be employed to foster high quality implementation.

The ICF-implementation process will be arranged co-operatively by the Oulu University Hospital, and Oulu University of Applied Sciences. The process includes several interprofessional interventions:

- information sessions before the actual ICF-education/workshops
- two days ICF-education (the WHO model) for a target group
- educational workshops for all participants

The participants are physiotherapists, occupational therapists, speech therapist's, nurses, clinical psychologist's bachelors of social services and medical doctors etc.

The key issue of the implementation is to facilitate participation of the professionals.

Methods & Materials

Assessment strategies included: conducting by research a needs, resources, fit, capacity/readiness assessment concerning the ICF-implementation process.

Research questions were:

1) What kind of awareness and experience do the employees have about the ICF?

2) What kind of training of ICF employees themselves consider to need? Data was collected by means of a questionnaire developed especially for this purpose. Answers were given by employees (n=98). The response percentage was estimated about 50%.

The data was analysed using the SPSS Statistics tool (descriptive methods) and the open ended questions were analysed by content analysis.

Results

ICF-frameworks awareness (scale 1 – 10)		Statistic	Std. Error
Mean		2,990	,2012
95% Confidence Interval for Mean		2,590	
5% Trimmed Mean		3,389	
Median		2,855	
Variance		2,000	
Std. Deviation		3,969	
Minimum		1,9922	
Maximum		1,0	
Range		8,0	
Interquartile Range		7,0	
Skewness		3,0	
Kurtosis		,917	,244
		-,193	,483

No one reported having enough knowledge of ICF. Participants didn't have experience how to use ICF in practice but almost everyone had some kind of training of ICF.

According to the results there is interest and need of learning about ICF and to take it into daily practices.

The employees described that implementation process will require multiprofessional team learning of ICF-theory and workshops about ICF-practices.

The employees expected the support and commitment from management during the learning process.

Conclutions:

The results strengthen the view that the process will be carried out by communal methods and multiprofessionally.

Implementation will start mainly from the basic level consisting of the frameworks background theory, principles, values and tools.

Challenge for the implementation is to find suitable arena's and space to support reflective learning situations.

Our main goal is that our research and implementation processes findings could serve as a useful outline for practical implications for ICF-implementation efforts and processes in the University hospital settings.

Towards Occupational Health from a Biopsychosocial perspective; an Evidence Based approach 0106

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Abstract: In this presentation the need for a paradigm shift from post-diagnosis tertiary care towards the maintenance and promotion of health across the lifespan for healthcare in general and in occupational healthcare specifically, is addressed. It is hypothesized by the authors that the realization of this paradigm shift may be facilitated through education of the International Classification of Functioning, Disability and Health (ICF) to (future) occupational health professionals. In this presentation we describe the development of the training trajectories for the master Work Health and Career (Maastricht University) as an example of an intervention for shifting the paradigm in healthcare curricula. We discuss the potential value of incorporating the biopsychosocial model into the assessment and scientific reasoning skills of students, through combining training in using the ICF, with training in the Critical Appraisal of a Topic (CAT). The expected impact of this approach is a shift from; the biomedical towards the biopsychosocial paradigm, a reductionist approach towards a more holistic view on cases, a reactive way of working towards a more proactive work style, and from using a merely quantifiable evidence base towards using a broad evidence base. The potential relevance of this approach for other disciplines is discussed in the end.

Introduction

Traditionally, Occupational Health and Healthcare are strongly rooted in the biomedical paradigm, which is characterized by a reductionist view, taking a symptomatic disease/disorder or injury as the primary point of departure for prevention and care. When the predominant focus in Occupational Health was on chemical and physical exposures in the second half of the last century, this model proved its value for determining causal relations and intervening on harmful determinants. In the last decades, the focus of Occupational Health has shifted towards the impact of psychosocial factors on health and labour participation corresponding with a shift from a manufacturing based economy to one dominated by the service sector. At the same time, sustainable engagement of workers across the lifespan is of utmost importance, given changing demographic and economic conditions, such as the aging workforce and increase in precarious employment. Fostering sustainable working lives and dealing with more diffuse psychosocial problems of employees requires different assessment and reasoning skills. To facilitate a shift in focus from post diagnosis tertiary care towards fostering the health of employees across the lifespan, the need for the biopsychosocial paradigm becomes paramount (1). Professionals should be equipped through education and training to think and act in accordance with this paradigm, trough integration in their assessment and clinical/scientific reasoning skills. The ICF can add to this aim. This is especially so when a more precise description of a specific context is available like the elaboration on the ICF for the subfield of work and health by Heerkens et al (2-3).

Methods

Method: In the new master Work Health and Career (WHC), commencing in 2013 at the Maastricht University, the ICF and the elaboration on it by Heerkens are implemented as a frame of mind throughout the one year curriculum. The ultimate goal of this curriculum is to produce professionals capable of fostering sustainable work at all levels within organisations (e.g. occupational healthcare, human resources or policy makers). To boost the implementation process of the ICF within the WHC curriculum the ICF training was grafted onto the generally accepted tradition within health sciences and medicine of working evidence based, for which the format of CAT is used (Figure 1) (4).

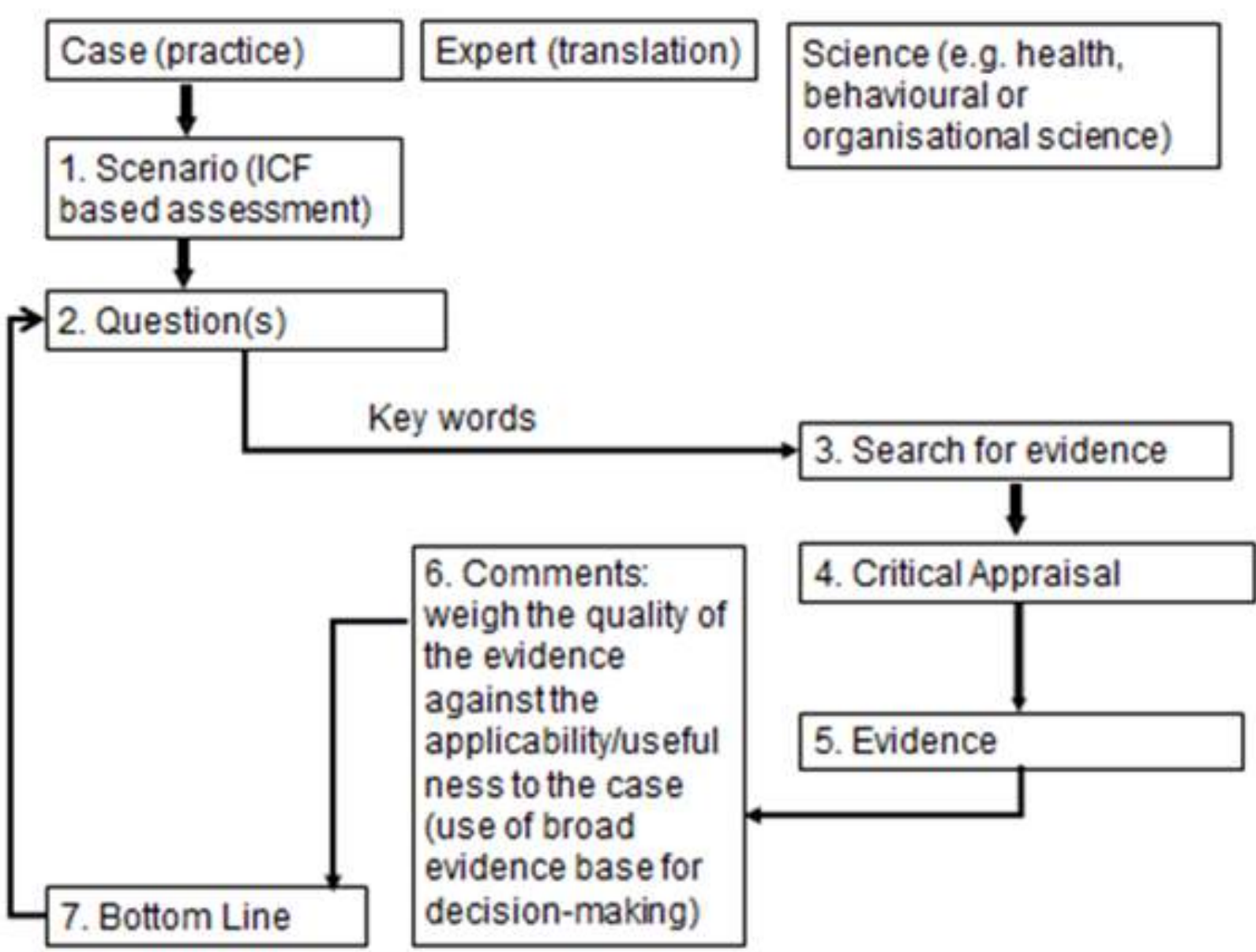


Figure 1: CAT format

Each component of CAT is elaborated on to make this tool compatible with the biopsychosocial paradigm (5). ICF codes are used as a language, when describing cases to warrant a holistic assessment. The ICF framework is a guidance for considering outcomes in the domain of functioning and relating them to contextual factors, inspiring the formulation of relevant questions about work participation and health. Trough teaching students how to value and appraise a broad evidence base, reflection on quantitative as well as qualitative methods, experimental as well as observational results, investigating attitudes, health experiences as well as perceptions of stakeholders, is trained.

Results

This strategy ultimately results in a synergy of both longitudinal training trajectories facilitating a shift on different levels;

- from merely biomedical reasoning towards integrating the biopsychosocial paradigm
- from a reductionist approach towards a more holistic assessment of cases
- from a reactive way of working towards raising awareness for a proactive work style
- from merely tertiary preventive activities towards fostering health across the lifespan
- from using a merely quantifiable evidence base to using a broad evidence base, valuing methods from the positivist (e.g. Randomised Controlled Trial), to the hermeneutic (e.g. Moral Case Deliberation) methodological paradigm

Discussion

By using the CAT as a vehicle for applying the skills learned in the ICF training, students are motivated to learn the language captured within the ICF, since it enhances them in assessments, clinical/scientific reasoning and communication from a biopsychosocial perspective. This might be a fruitful approach for teaching evidence based skills within all disciplines in which the contextual factors strongly influence outcomes like for instance in rehabilitation settings, psychiatry and nutritional science.

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Investigating a repository for ICF education materials

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Abstract The World Health Organization's International Classification of Functioning, Disability and Health (ICF) has been in circulation for more than a decade. Since publication members of the Functioning and Disability Reference Group (FDRG) have been teaching users and potential users about the clinical, social, academic, research, health service administration and statistical uses of the classification using a selection of materials and methods. If the classification is to be applied consistently and reliably quality education is essential. Rather than leaving new educators to replicate the efforts of others by developing more educational materials for similar purposes FDRG members and collaborators agreed that a repository for educational materials would be of benefit. Additionally the materials collected could be rated by users or evaluated according to quality criteria to form the basis of learning resources on specific topics. As a first step a small group came together to specify the scope of the repository, to define the descriptive and search criteria and to investigate the technical requirements for making available the educational materials in a user-friendly accessible tool. Individually they committed personal financial resources and their own time to develop a prototype. The prototype tool will be demonstrated at the symposium and the next steps in developing and making available the tool will be discussed.

Introduction

The International Classification of Functioning, Disability and Health has been in use since 2001. Many people have developed educational materials to support the implementation of the classification. In 2014 the Functioning and Disability Reference Group (FDRG) undertook a survey to find out what types of ICF education materials members and collaborators held and their willingness to share the resources with others. Of the respondents most were willing to share their resources and work with others to develop new ones.

The basis of the introductory module of the WHO e-Learning tool was the collection of educational materials from FDRG members, collaborators and WHO officers. In 2006 the information about the resources was housed in a database at the WHO-FIC Collaborating Centre in the Netherlands. The database has not been maintained in recent times.

Now that there is a need for education materials beyond those introducing ICF a new collection should be initiated. With new globally accessible technologies and collaborative network approaches it is possible for not only information about the resources, but copies of the resources to be made available. With this in mind a small group who committed both their time and personal financial resources to building a repository for ICF educational materials.

For further information:

csykes@wcpt.org or
ssnyman@sun.ac.za

www.icfeducation.org

First steps

1. Crowd source €2000
2. Specify the functions required
3. Specify the search filters
4. Specify the platform for a prototype
5. Commission a prototype build

Functionality

- Educators must be able to register on a website to upload material
- They must be able to upload the material using a set of criteria to describe the product
- The entry must be verified as ICF material (i.e. non-porn, etc.) and made live by an "ICF expert on call"
- Users must be able to download materials or find where the resource can be located
- Users must provide an email address and the reason for downloading the material (so contact can be made for the purposes of evaluation)
- There must be the ability for users to rate the material
- If materials are peer-reviewed by an "ICF expert" a "verified" label can be added
- User must be able to leave comments or ask questions
- If materials are altered either by users or educators they must be able to be uploaded again, linked to the original.

Technology

Open source platforms were used for the website (Wordpress 4.2.2) and database (MySQL v5). Contextualised bulk email services are provided by MailChimp (SaaS). Survey data is gathered via SurveyMonkey (SaaS).

Search filters

- Referring to the Dutch database and the information from the 2014 survey it was decided to simplify the description of each material.
1. Contact details for further information or to access copies
 2. Developer and copyright holders of the material
 3. Title and brief description in English
 4. Languages available
 5. Main audience(s)
 6. Content
 7. Form of the material (e.g slides, video, notes, website)
 8. Level of education (introductory, intermediate, specialised)
 9. Availability (proprietary, cost, access restrictions)

A pathway forward

It is expected that the steps achieved through 'dispersed efforts' will support the path forward outlined by Madden et al. in a poster to the First International Symposium: ICF education, 2015.

A demonstration of the prototype site and ensuing discussions will inform progress on the project.

Required will be:

1. Approval of the functionality and design
 2. Pilot testing
 3. Upload education materials
 4. Volunteers to be on call for a week or month at a time to "verify" any new uploads
 5. Peer-review contributions
 6. Approval of a name – NICER?
 7. Communications strategy
 8. Refinement and launch
- The WHO-FIC meeting in October 2015 is the anticipated for the launch.

Rehabilitation Problem Solving using ICF criteria

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Abstract Cerebral Palsy (CP) is the most disabling health condition in childhood. Children with CP usually present impairments, activity limitations and participation restrictions. The use of ICF principles, definitions and Rehabilitation Problem Solving Form help to perform a wholistic assessment of children with CP and plan the most appropriate interventions.

Introduction

Cerebral Palsy (CP) is the most disabling health condition in childhood. Children with CP usually present impairments, activity limitations and participation restrictions. Objectives of this study are to explore and analyze functioning, activities, participation of a 8 years old boy with **Spastic Bilateral Cerebral Palsy (CP)** using:

- ICF-CY Model** (WHO, 2007) and
- Rehabilitation Problem Solving Form (RPS-F)** (Steiner et al., 2002) as a communication tool in CP program to provide patient centered rehabilitation approach and to structure decision-making process.
- Rehabilitation management in this study is based on the principle of **rehabilitation cycle** which helps to facilitate the structuring, organization and documentation of the rehabilitation process, as well as help to coordinate actions.

Methods & Materials

CP decision making tree (SCPE) was used to identify CP subform of 8 years old boy.

To avoid subjective decisions activity-focused assessment tools were used:

Gross Motor Function Classification System (GMFCS) (Palisano et al., 1997)

<http://www.canchild.ca/en/measures/gmfcs.asp>

Manual Ability Classification System

(Eliasson et al., 2006)

<http://www.macs.nu/>

Viking Scale

(Pennington et al., 2010)

<http://www.scpenetwork.eu/>

Communication Function Classification System (CFCS)

(Hidecker et al., 2011)

<http://cfcs.us>

Gross motor function measure

(GMFM) (Russell et al., 2013) was used for assessment of gross motor functions

PEDI parts II and III- Caregiver Assistance and Modification (Haley et al., 1992) was used for assessment of self-care, mobility and social functions as well as level of assistance.

Results

The multiprofessional rehabilitation team and the parents of CP child were introduced to the principles ICF-CY and RPS-F.

The functional assessment results were integrated into **ICF Categorical profile**.

RPS-F based on **ICF Categorical profile** was completed by the parents of CP child and the multiprofessional rehabilitation team.

Chart 1: Rehabilitation cycle

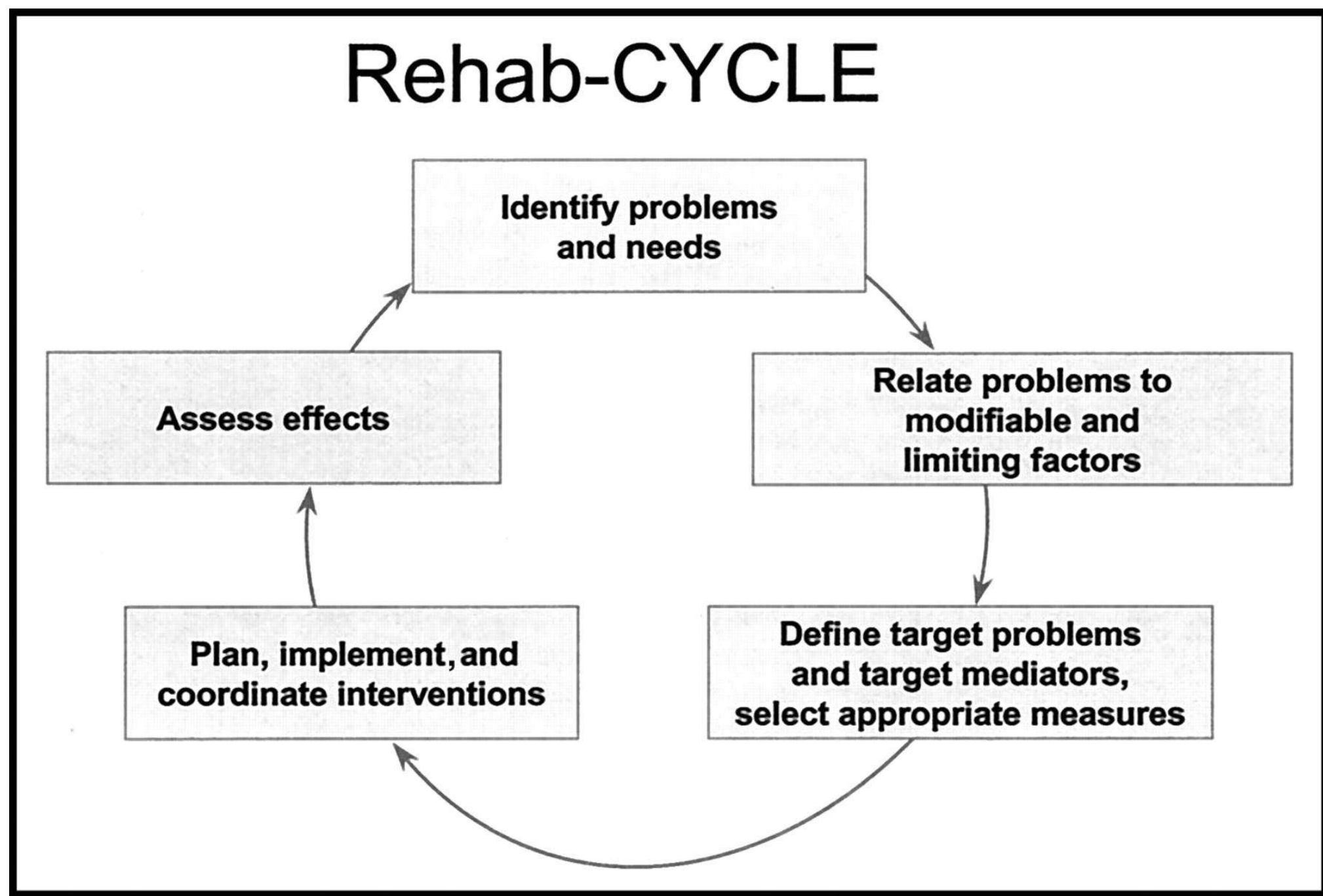


Chart 2: Rehabilitation Problem Solving Form

REHABILITATION PROBLEM SOLVING FORM			
Patient Nr.: 432 Age: 8 years Date: 01.03.2015.		Disorder /Disease: Bilateral Spastic Cerebral Palsy	
		Medication: n/a Coordinator: Andra	
Patient/family perceptions of problems and disabilities	b1 MENTAL FUNCTIONS b 140 Attention functions b 1400 Sustaining attention	d 4. MOBILITY d 415 Maintaining a body position d 4153 Maintaining a sitting position d 420 Transferring oneself while sitting d 4200 Transferring oneself while sitting d 440 Fine hand use d 4402 Manipulating	d 8 MAJOR LIFE AREAS d 820 School education d 8201 Maintaining educational programme
	b7 NEUROMUSCULOSKELETAL AND MOVEMENT-RELATED FUNCTIONS b730 Muscle power functions b735 Muscle tone functions	d 5. SELF CARE d 530 Toileting d 540 Dressing d 550 Eating	d 9 COMMUNITY, SOCIAL AND CIVIC LIFE d 920 Recreation and leisure d 9202 Arts and culture
Health Professional identification of functions relevant to target problems	s 1 STRUCTURE OF THE NERVOUS SYSTEM s 110 Structure of brain s 1107 Structure of white matter b1 MENTAL FUNCTIONS b 140 Attention functions b 1400 Sustaining attention	d 1 LEARNING AND APPLYING KNOWLEDGE d/145 Learning to write d 2. GENERAL TASKS AND DEMANDS d 230 Carrying out daily routine	
	b 3 VOICE AND SPEECH FUNCTIONS b 320 Articulation functions	d 235 Managing one's behaviour d 3. COMMUNICATION d 330 Speaking	
Health Professional identification of functions relevant to target problems	b 7 NEUROMUSCULOSKELETAL AND MOVEMENT-RELATED FUNCTIONS b 710 Mobility of joint functions b 715 Stability of joint functions b 730 Muscle power functions b 735 Muscle tone functions b 740 Muscle endurance functions	d 4. MOBILITY d 410 Changing body positions d 4103 Sitting d 465 Moving around using equipment d 415 Maintaining body position d 4153 Maintaining a sitting position d 440 Fine hand use d 5. SELF CARE d 530 Toileting d 540 Dressing d 550 Eating	
	Contextual factors		
Personal factors		Environmental factors	
Motivation Positive attitude		e 1. PRODUCTS AND TECHNOLOGY e 115 For personal use in daily living- <i>orthopedic shoes, adapted utensils</i> e 120 For personal indoor and outdoor mobility and transportation – <i>wheelchair</i> e 130 Products and technology for education- <i>computer</i> e 3. SUPPORT AND RELATIONSHIPS e 310 Immediate family e 320 Friends e 340 Personal care providers and personal assistants e 355 Health professionals e 5. SERVICES, SYSTEMS AND POLICIES e 540 Transportation services, systems and policies e 570 Social security, services, systems and policies e 580 Health services, systems and policies e 583 General education and training services, systems and policies	

Conclusions

The use of ICF principles and definitions help to perform a wholistic assessment of the functions, activities, associated disabilities of children with CP.

Use of evidence based functional level assessment tools -GMFCS, MACS, CFCS, Viking scale, as well as use of GMFM and PEDI scales help to quantify the impairment, capacity limitation and performance limitations of the individual with CP.

The visualization of target problems as well as the target mediators in RPS-F helps to define practical, meaningful, measurable and attainable therapy goals as well as plan the most appropriate interventions for CP children.

The discussions stimulate active involvement of family in the decision making.

Use of ICF principles and RPS-F can facilitate cooperation among parents of children with CP and medical, social and education sectors of municipality.

These findings suggest that the communication between multiprofessional rehabilitation team and child's parents needs to be enhanced.

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Using ICF in self-reported questionnaires among Finnish Adolescents.

Authors: Kwok Ng, Raili Välimaa, Pauli Rintala, Jorma Tynjälä and Lasse Kannas
University of Jyväskylä, Finland

Abstract The WHO Collaborative - Health Behaviour in School-aged children study collects self-reported national representative data about health behaviours of adolescents in over 40 countries in Europe and North America. It is therefore important that there is an instrument that can be used to coincide with the ICF for disability statistics. This study describes the various types of functional difficulties that Finnish adolescents reported.

Introduction

The ICF has been instrumental in the design of collecting data in surveys. Amongst important populations are adolescents as they go through biological, psychological and social change in their lives. It is therefore important to collect data from their individual perspectives on functioning, disability and health. As well, research on adolescents conducted in compulsory education can provide future indicators for the health care provisions. However, large scale survey instruments intended to provide such statistics tends to be based on the medical model of disability rather than the biopsychosocial model of disability as in the ICF. In this study, our investigations included the combination of the chronic conditions short questionnaire (CCSQ) and the disability short set questionnaire (DSSQ) to provide statistics on adolescents with disabilities.

Methods & Materials

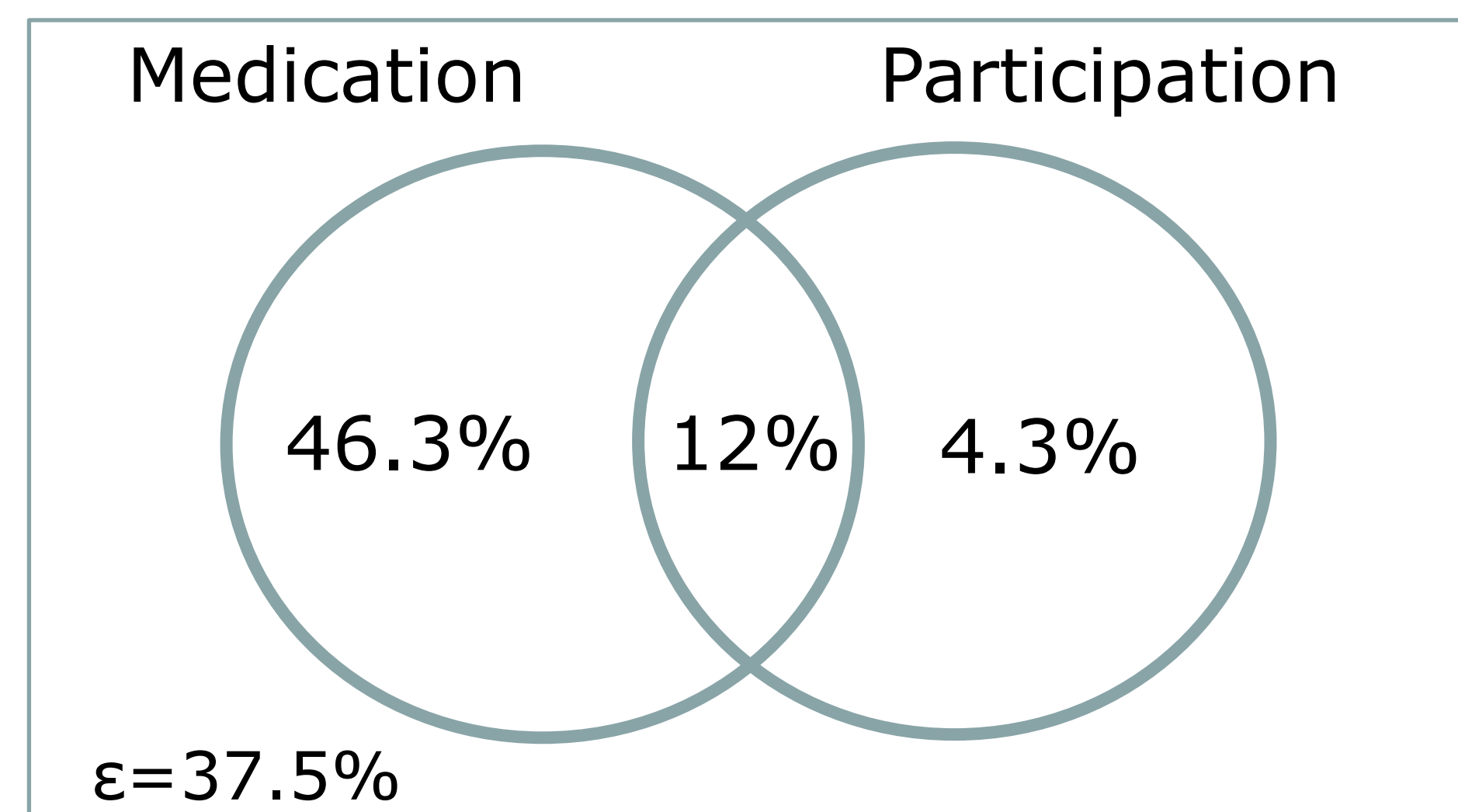
The WHO collaborative HBSC-study, Health Behaviour in School-aged Children, is a cross-sectional self-report survey based on national representative samples among 11, 13 and 15 year old school children and was conducted during spring 2014. 13 and 15 year olds (n=3808) were included in this study. The CCSQ was used to ask whether the adolescent has long-term illnesses, or disabilities as stated by a doctor, if they take medication, and if that affected their participation in school. The DSSQ included categorisation of functional difficulties in seeing, hearing, speaking, moving, handling objects, and breathing and used a scale of 0 (no difficulties) to 4 (complete difficulties). Cut-offs based on ICF descriptors were used for moderate difficulties.

	% Girl	% 13
LTID	55.4	47.5
Participation	54.2	46.7*
Medication	60.3	39.7
RCS	60.2	52.3

Table1: Differences in study characteristics in Gender and Age group. * sig>.05

Results

Chart 1: Venn Diagram of adolescents with LTID affecting school, taking medication because of LTID, or both in %.



One in four children (25.8% reported to have long-term illnesses or disabilities (LTID). Just under a sixth (16.3%) felt that their LTID affected their school attendance and participation. Over half (58.4%) took medication because of their LTID (Chart 1, Table 1). There were significantly more 15 year olds with LTID affecting their school than 13 year olds. Allergies (20%), joint pains (31.3%), and allergies with joint pains (14.3%) were common among those with LTID (Table 2). When adolescents reach 15, they reported more joint pains than the age of 13. Many more boys have epilepsy compared with girls, although there was a low prevalence.

Symptoms	% LTID	% Girl	% 13
Epilepsy	3.9	32.4 *	48.6
Allergy	64.8	56.8	48.2
Diabetes	9.7	50	45.1
Asthma	34.8	55.9	48.8
Joint Pain	45.9	58.4	51.4*

Table2: Differences in Illness symptoms in Gender and Age group. * sig>.05

Difficulties in remembering things, concentrating, or sitting (RCS) was very common, but only 7.2% of this population reported to have only these difficulties without other functional difficulties or health conditions. Functional difficulties accounted for only 43.1% of the total number of self-reported disabilities (Table 3). The most common functional difficulty was breathing (32.6%) and just under a quarter (24.6%) had two functional difficulties, and almost one in six (15.4%) reported to have three or more functional difficulties.

There were significantly more girls that reported to have at least moderate difficulties with breathing than boys. In contrast, more boys reported to have hearing or handling difficulties, however these levels of prevalence were low. No adolescent reported to have only moving difficulties without combining with another type of difficulty.

	% LTID	% Girl	% 13
Functions	43.1	41.0	49.6
Seeing	13.6	56.2	42.3
Hearing	6.7	40.6*	50
Speaking	20.2	57.5	43.5
Moving	16.5	54.1	45.2
Handling	9	43.0*	47.1
Breathing	28.9	61*	46.7

Table3: Differences in Functional Difficulties in Gender and Age group. * sig>.05

Only 8.5% adolescents reported to have LTID but did not have any functional difficulties or medical conditions that were listed.

Conclusions

Adolescents who reported to have LTID also reported to have a large range of functional difficulties as well as medical conditions.

It has been possible to measure disabilities in adolescents with a brief set of questions. Future studies should consider reliability and validity tests as well as combining self-reported data with other large surveys like the census and national health surveys.



Acknowledgements or Notes

Keywords: Functional Difficulties, Health Conditions, HBSC Study, Disability Short Set Questionnaire, Statistics, Survey.

Trends of meeting Physical Activity recommendations in Finnish adolescents with long term illnesses or disabilities.

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University of Jyväskylä, Finland

Abstract Participating in regular physical activity is regarded to be beneficial for health. There has been an increase in the number of adolescents with long term illnesses or disability that have been doing what is considered the recommended amount of physical activity for health, over time. However, the more encouragement in physical activity as part of daily routines may be needed as the percentage of the population remains low.

Introduction

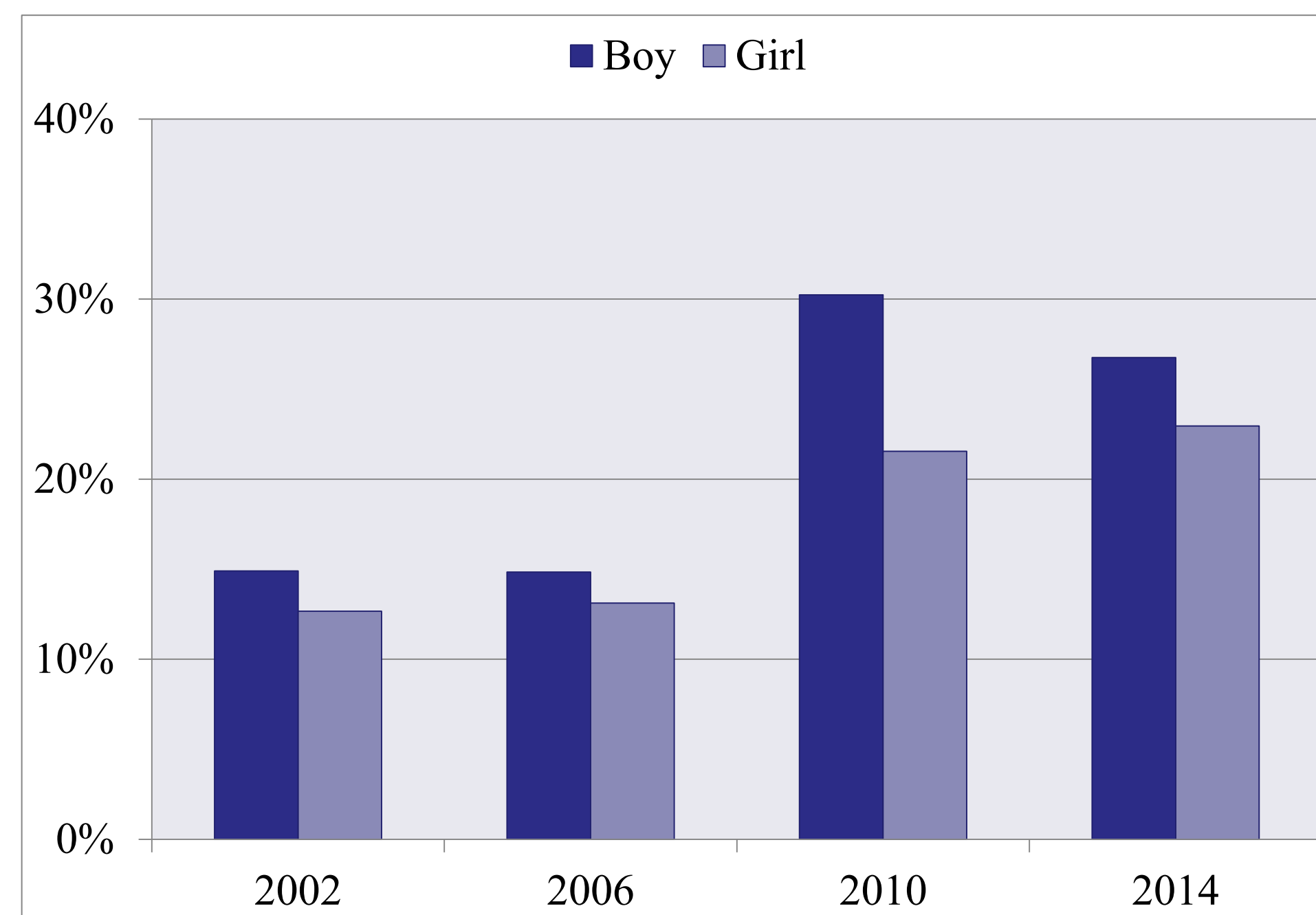
In the ICF, the code for recreation and leisure is d920, in which there are two separate codes for play (d9200) and organised sports (d9201) as part of the community, social and civic life (d9) domain in the activities and participation component. However, physical activities (PA) are not just limited to community activities. PA involves moving around (d455) and often requiring a number of neuromuscularskeletal and movement related functions (chapter 7) and a capacity for exercise tolerance functions (b455). Being physically active is also about maintaining one's health (d570), as being physically active has been seen to be negatively correlated with risk behaviours, particularly when it is conducted as part of a daily routine (d230). Recent guidelines by the WHO concerning physical activity for health suggest that adolescents should take part in at least one hour daily of moderate to vigorous physical activity (MVPA) per week. There are limited studies concerning trends in PA among adolescents with long-term illnesses or disabilities (LTID). In this study, we investigated the trends of adolescents with LTID who meet these recommendations after taking into account membership of a sports club, age, and gender.

Methods & Materials

2206 Finnish adolescents in grades 7 (mean age=13.8 years, SD=.32) and 9 (mean age=15.8, SD=.30) with long term illnesses or disabilities (55% girls, mean age=14.8, SD=1.05) took part in the self-report survey – WHO collaborative Health Behaviour in School-aged Children (HBSC) study, in 2002, 2006, 2010 and 2014. This represented under a fifth (17.1%) of the overall sample population (n=12913). Adolescents were divided into groups of active sports club members (n=936) and others (n=1270). The dependent variable was dichotomised into those that reported daily 60 minutes of MVPA and those that had not in a linear contrast regression analysis.

Results

Chart 1: Percentage daily MVPA between boys and girls (2002-2014).



More proportion of boys (20.6%) than girls (13.6%) met PA recommendations. The group with the highest proportion of adolescents that met the PA recommendations were boys with LTID that are sports clubs members (31%).

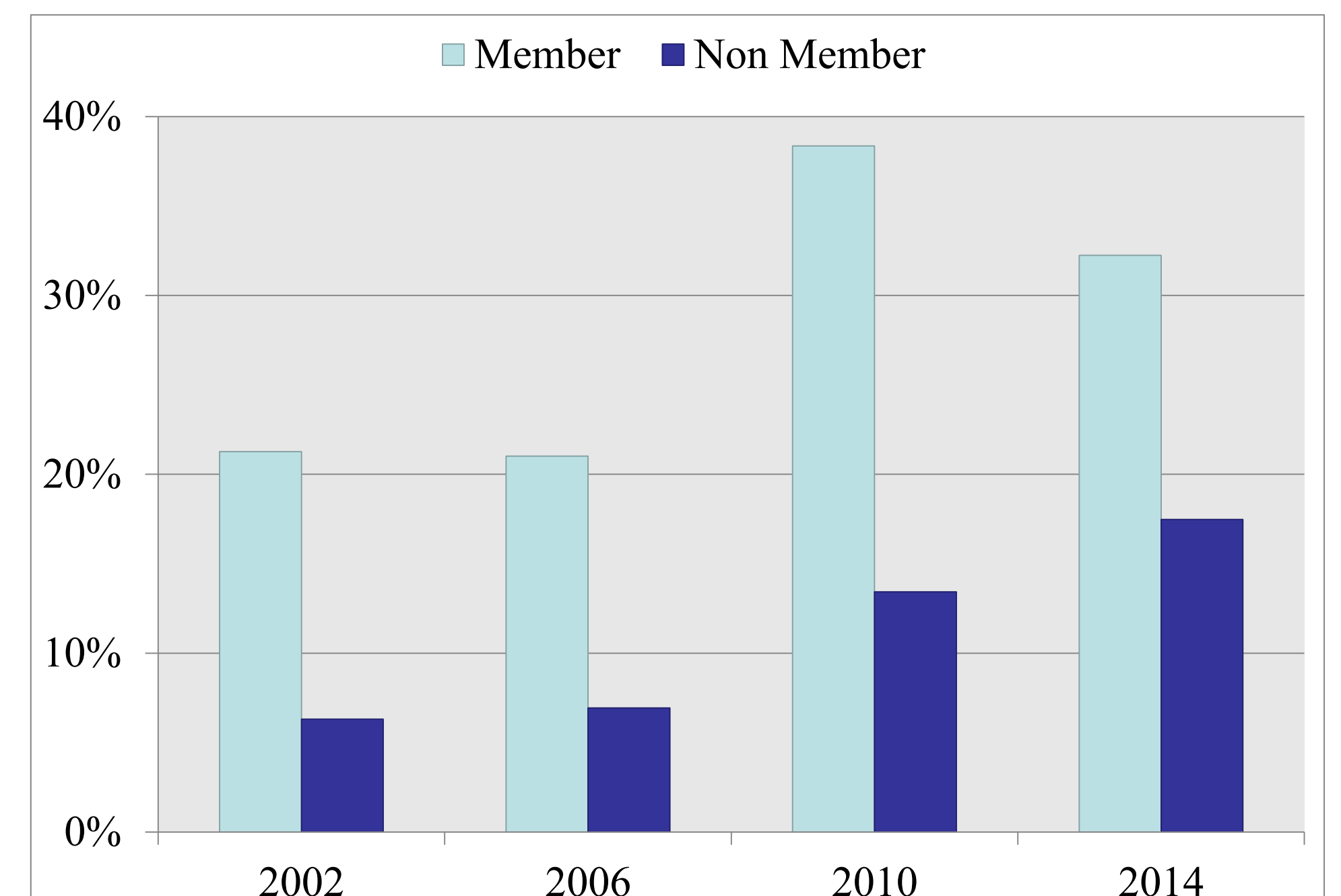
There were statistically significant increases ($F=23.7$, $p>.001$) in the proportion of boys with LTID that met PA recommendations over time (2002, 13.0%; 2006, 13.7%; 2010, 28.5%; 2014; 26.6%).

Girls followed a similar significant increases ($F=7.6$, $p=.006$) of the proportion that met PA recommendations over time (2002, 8.7%; 2006, 13.1%; 2010, 16.7%; 2014, 15.6%). There was a clear linear increase in adolescents that were not sports club members (2002, 6.2%; 2006, 8.2%; 2010, 11.3%; 2014, 14.7%). There was an overall increase from adolescents that are sports club members, but it was not year by year (2002, 18.0%; 2006, 20.9%; 2010, 35.4%; 2014, 27.5%). Sports club membership was not found to moderate this result.

Year	% LTID	% Girls	% MVPA	% Club
All	17.1	55.2	16.7	42.4
2002	17.8	54.2	10.7	38.2
2006	17.3	56.4	13.4	40.9
2010	14.4	57.0	21.8	43.4
2014	19.2	53.5	20.7	46.6

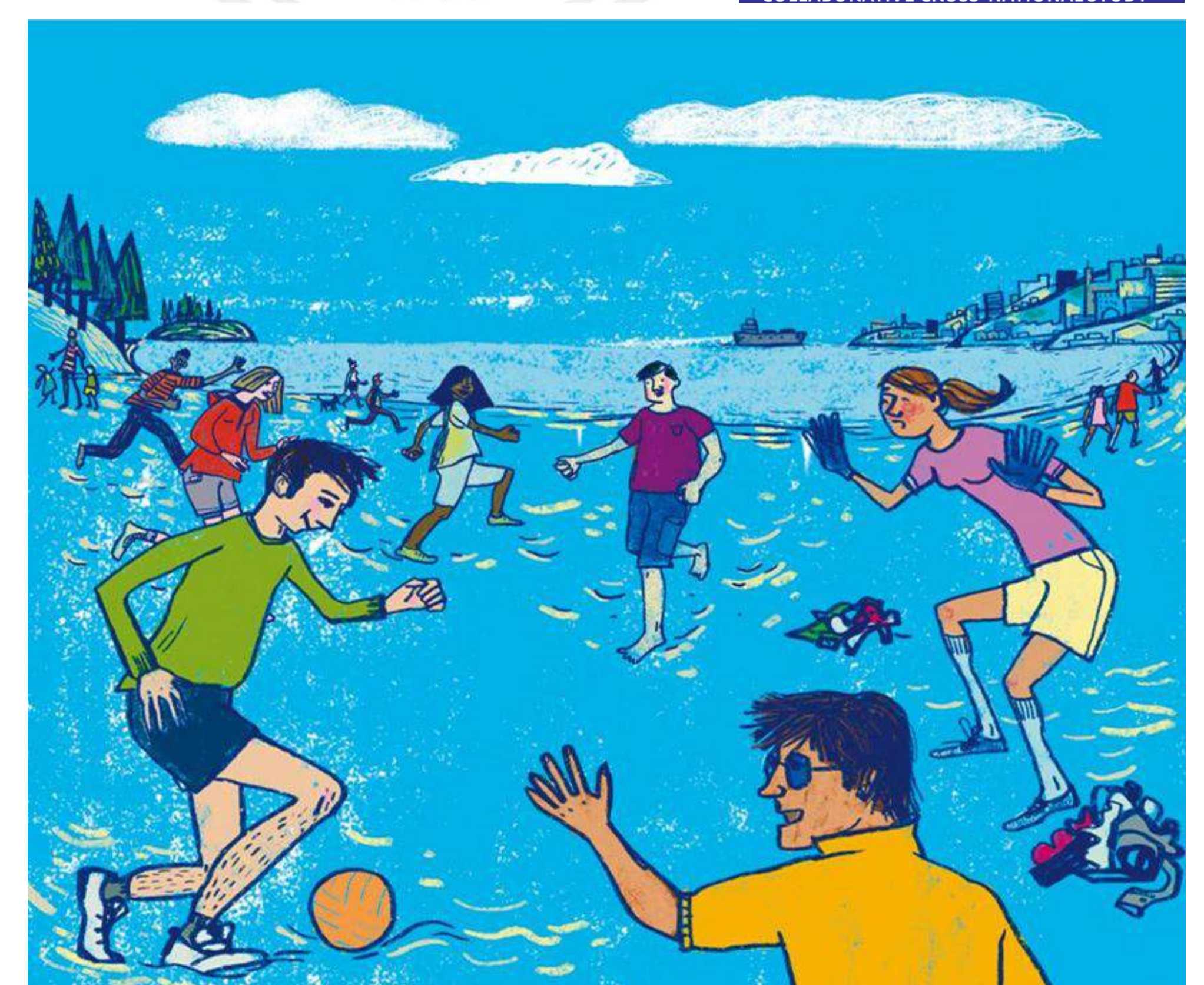
Table 1: Main Characteristics of the study

Chart 2: Percentage daily MVPA between members and not members (2002-2014).



Conclusions

Over time, more adolescents with LTID are meeting the PA recommendations by completing a daily routine of being physically active. It could worthwhile to include physical activities in branch of codes belong to d230. One possible way to reach PA recommendations for health would be to encourage adolescents to become active members of sports clubs (d9201).



Acknowledgements or Notes

Keywords: sports club, moderate-to-vigorous physical activity, ICF, daily routine, HBSC Study

Introducing the ICF-CY based Communication Supports Inventory for Children and Youth (CSI-CY)

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³Jonkoping University,⁴Independent AAC Consultant

Abstract Two studies are presented that evaluated the Communication Supports Inventory- Children & Youth (CSI-CY), an instrument designed to facilitate the development of communication-related goals for students with complex communication needs (CCN). The CSI-CY incorporates a code set based on the ICF-CY, has practical educational use for children with CCN, and is well-regarded as a tool to inform the content of communication goals related to CCN.

Introduction

An international group of augmentative and alternative communication (AAC) researchers and clinicians studied educational goal development using the International Classification of Functioning, Disability and Health-Children and Youth version (ICF-CY). Our efforts, all involving children who rely on AAC, have resulted in the development of the Communication Supports Inventory-Children & Youth (CSI-CY), which is comprised of a survey and a report function to facilitate the educational planning process. The CSI-CY, available at no cost at www.csi-cy.org, incorporates a 112-item code set which is based on the ICF-CY. We will present a summary of our development process, the CSI-CY itself, the influence of the CSI-CY on goal development and user satisfaction data.

Methods & Materials

Our initial study used a modified Delphi procedure to identify items to produce an AAC code set from the ICF-CY for use in the CSI-CY (see www.csi-cy.org and click on code set tab). See table 1 for overview.

Table 1: ICF-CY chapters used for sections of the AAC code set and CSI-CY.

Sections of the AAC code set and CSI-CY	ICF-CY chapters used for sections items
Restrictions to Participation	d2, d3, d4, d5, d6, d7, d8, d9
Communication Limitations	b1, b3, b7, d1, d3, d7
Impairments in Body Functions	b1, b2, b3, b4, b7
Environmental Factors	e1, e2, e3, e5

Using fictionalized student reports, speech pathologists and educators were asked to use the CSI-CY to describe a student and to evaluate the tool and its usefulness. Revisions followed. For our second study, we developed a report function so that the user can select the areas of concern that they want to consider for potential educational goals. Using the revised CSI-CY, consisting of a survey and a report, a group of 61 speech pathologists and educators were randomly assigned to 1) submit an individual educational plan (IEP) for a student then complete the CSI-CY for that student (control group) or 2) complete a training video, use the CSI-CY for a student and subsequently use

that information to write an IEP (experimental group). A comparison of educational plans prepared before using CSI-CY and after using the CSI-CY was completed. Each IEP goal was examined for its content relevant to the 14 subsections of the CSI-CY. If an IEP goal was related to a CSI-CY subsection, it was coded as such. User satisfaction data was collected on the first 166 CSI-CY users.

Results

The number of communication-related goals/objectives per IEP averaged 9.8 and ranged from 1-31 (SD=6). The number of communication-related accommodations/modifications/services (AMS) per IEP averaged 5.0 and ranged from 1-26 (SD=5). The number of times that CSI-CY-related content was referenced in IEP goals/objectives and AMS was calculated for each participant/IEP. In the experimental IEPs, CSI-CY-related content was addressed a mean of 23 times, as compared to a mean of only 16 times for the control IEPs. An ANOVA demonstrates that this difference is significant ($F = 4.386$, $df = 1, 59$, $p = .041$), suggesting that use of the CSI-CY influenced IEP content.

In table 2, seven of the 11 goal/obj. subsections were referenced more frequently in the IEP goals/objectives of experimental IEPs than of control IEPs. Results suggest that educational professionals are more sensitive to IEP items that include both social engagement and environmental factors for children with CCN if they used the CSI-CY before completing educational plans.

Table 2: Mean frequency of occurrence of goals/objectives increased in 7 of 11 goal/obj. subsections of CSI-CY in the experimental group, compared to control group.

Subsection	Control IEPs (no CSI-CY use)	Experimental IEPs (after CSI-CY use)
School Activities	0.8	1.1
Interpersonal Relationships	0.4	0.7
Expressive Lang & Literacy	2.8	4.6
Functions	2.3	3.9
AAC-Expressive	2.5	4.5
AAC-Motor	0.0	0.2
Environment/AT	3.1	4.5

CSI-CY users were required to complete a 3-item feedback survey for purposes of collecting consumer satisfaction data. See table 3. As of this writing, feedback was available from 166 users, of whom 79 also provided demographic data. Of the latter users, 84% worked in elementary settings, 58% in middle school settings and 53% in high school settings.

Table 3: Users' responses to satisfaction statements.

Statement	% participants who strongly or somewhat agree with statement (N=147)
The CSI-CY helped me to write more effective communication goals for this student's IEP	82%
I considered areas of concern that I had not thought of before using the CSI-CY	81%
I would recommend the CSI-CY to another colleague	89%

Conclusions

The CSI-CY, a web-based tool to improve educational planning for students with CCN, is available at no cost at www.csi-cy.org. The high satisfaction scores accorded the CSI-CY by users suggests that there is a need for this instrument to support educators and speech therapists in targeting participation and everyday functioning in IEPs for students who rely on AAC for communication. A stronger training component, coupled with a larger sample size, would have boosted the effects obtained in this study. It is hoped that future studies will develop additional data to document a facilitative effect of the CSI-CY on the development of communication-related IEP goals. This tool provides a useful demonstration of the application of the ICF-CY to benefit children with a specific functional challenge that crosses a plethora of diagnostic conditions.

Acknowledgements

The contents of this instrument were developed at Oregon Health & Science University under a grant from the U.S. Department of Education, #R324A090028. However, those contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government. Project Officer, Kristen Rhoades.

Interactive ICF instrument for mapping disability and appointing necessary assistive technology

Authors: Sild, Minna; Kalevik, Tiina

Astangu Vocational Rehabilitation Centre, Tallinn, Estonia

Abstract An overview of the ongoing development process of an interactive instrument based on ICF for mapping disability, appointing necessary assistive technology for limited functions and measuring the impact. Meant to be used by therapists, doctors and other healthcare specialists.

Introduction

Estonia lacks a standardized and effective assessment instrument for mapping a person's functioning problems and disability, assessing the need for assistive technology (AT) and measuring the impact of it. A position paper by Andrich et al (2013)* also states that there is a need to level the professional knowledge about AT and make AT provisioning systems more effective in Europe overall.

In order to improve the quality of AT assessments and to raise clients' awareness about necessary devices, Astangu Vocational Rehabilitation Center, as a competence centre for consulting and assessing the need of AT in Estonia, has started to develop an interactive assessment instrument for that purpose. As an interactive tool, the instrument helps the healthcare specialists working with AT, the clients by higher quality recommendations and also benefits the funders (the government, insurance) in determining the priorities of funding.

* Andrich, R., Mathiassen, N-E., Hoogerwerf, E-J., Gelderblom, G.J. „Service delivery systems for assistive technology in Europe: An AAATE/EASTIN position paper“. (2013). *Technology and Disability*, 127-146

Methods & Materials

The instrument is based on two international classifications – the ICF for functioning and activities and ISO-9999 for assistive technology. The development process is based on case studies of clients and interviews with specialists working in the field.

In 2014 a team of 5 PT's, OT's and a project manager developed an initial assessment tool based on Microsoft Excel and tested the assessment process step by step on 50 clients. The first testing version included only the 2nd part of the instrument (see Results chapter), due to technical limitations. The aim was to conclude whether this concept would work in a practical setting. Currently, an interactive prototype of the full instrument is under development.

Results

Chart 1: The assessment instrument in Excel format, development in progress

	Frequency	Performance	0	1	2	3	4	5/9	Assistance NO YES	Assistive Technology
Moving around in different locations										
Moving around within the home		PERFORMANCE (without AT)								12.03.06 - kütusakargud
		PERFORMANCE (current AT)								12.06.06 - riiatond
		PERFORMANCE (new AT)								12.06.06 - riiatond
Comments:										12.06.06 - riiatond
Moving around within buildings other than home		PERFORMANCE (without AT)								12.06.06 - riiatond
		PERFORMANCE (current AT)								12.06.06 - riiatond
		PERFORMANCE (new AT)								12.06.06 - riiatond
Comments:										12.06.06 - riiatond

The assessment instrument being developed consists of three parts. It enables to:

1. Map the person's body structure and function problems by only mouseclicks, based on Body Structures and Functions part of the ICF (with integrated visual data to explain to the client what and where his main limitations are).
2. Assess the clients performance in Activity and Participation (based on the scale of ICF from 0 to 4):
 - without any AT to give the baseline;
 - with the current AT if it is used (chosen from a prematched list of ISO-9999);
 - predicting future performance together with the client if new and appropriate AT is utilized (also chosen from prematched ISO-9999).

Frequency and personal assistance factors are also assessed in the instrument for each activity. Development of the assessment instrument continues by adding environmental and personal factors, so that the facilitators and barriers of using AT can be measured.

3. Draw a graphical summary based on all the information inserted in the client's profile to provide an overview of how much and which activities will benefit from new AT.

The assessment tool is fully interactive - all the assessments are done by mouse-clicks and the codes are generated automatically by the technical solution. The specialist only has to deal with the practical part of mapping and assessment.

The first testings from 2 PT's and 2 OT's on 50 clients have given practical insight, that the concept can work. Also, several improvements have been implemented from the feedback of use. So far, the lack of technical solutions and user friendliness have not given full overview of the usability and implementations of the tool, therefore we have started the process of prototype development. In order to reduce the amount of data for testing, we have created client profiles similarly to ICF Assessment Core sets. The profiles include persons with stroke, spinal cord injury and lower limb amputation.

The need for consulting with ICF specialists has also emerged in the field on interpreting the codes – currently there is only one in the Activities section (d465 – Moving around using equipment) about AT and this subject is considered more thoroughly under Environmental factors as facilitators and barriers.

The graphical summary of all the data inserted also needs further development and help from technical solutions. The overall idea is, that the instrument would be comfortable to be used by specialists and the data would be easy to read and interpret, giving necessary information for the client, healthcare specialist and funders.

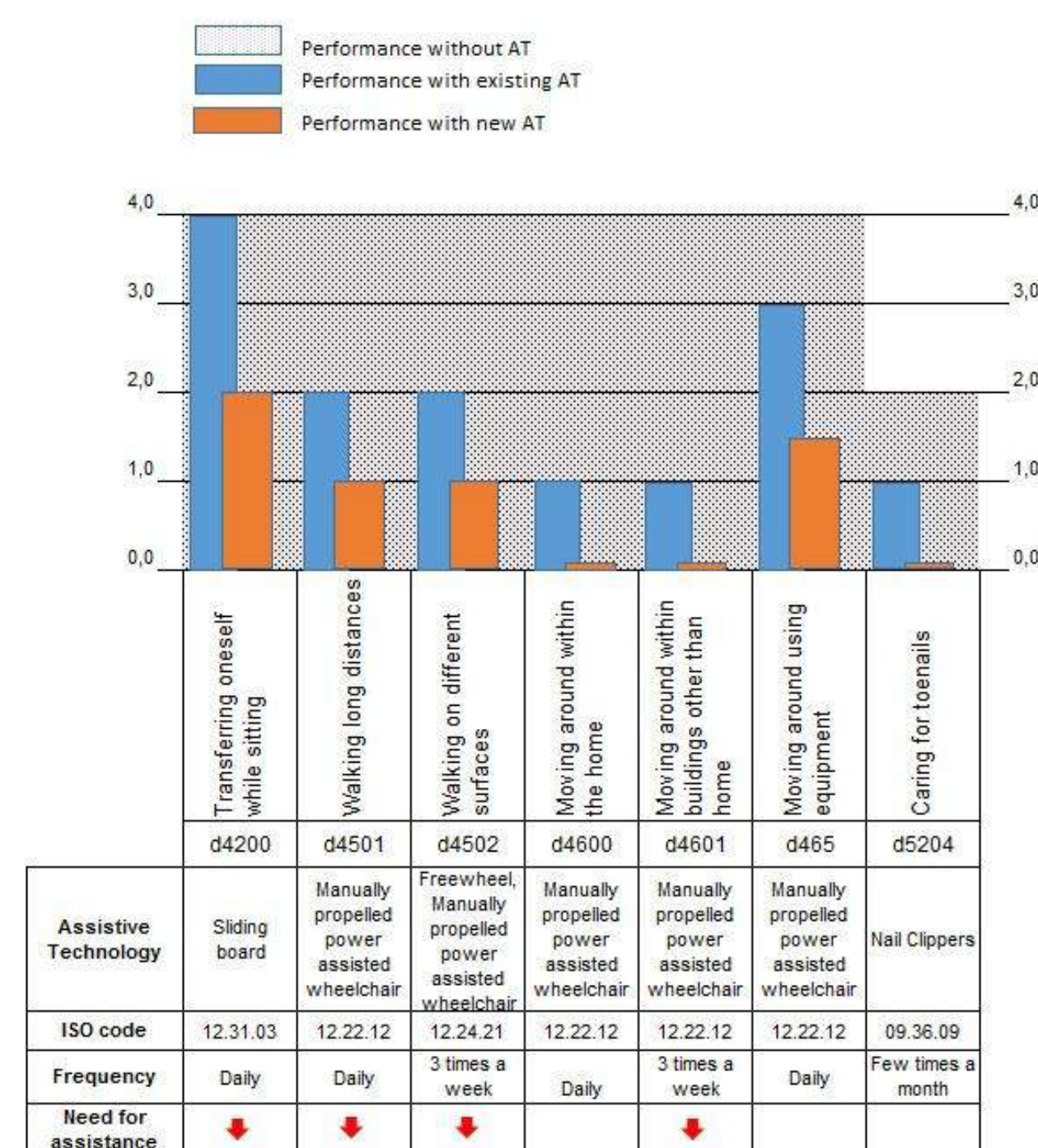


Chart 2: A potential way to graphically summarize the results

Acknowledgements or Notes

For further information please contact minna.sild@astangu.ee

APPROACH TO ICF-BASED ASSESSMENT OF BARRIERS

5 June 2015

Helsinki, Finland

O113

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¹ St. Petersburg Scientific and Practical Center of Medical-Social Expertise, Prosthetics and Rehabilitation of the Disabled named after G.A. Albrecht, St. Petersburg, Russia

² WHO-FIC Collaborating Centre in Russia

Abstract The aim of this paper is to assess barriers based on the ICF by interviewing persons with disabilities due to impairments in the musculoskeletal and sensory systems. Analysis of answers the developed questionnaires for the Chapter 3 'Support and relationships' and Chapter 4 'Attitudes' results in areas for correctional work with existing attitudes towards persons with disabilities that presented in different groups.

Introduction

While developing an individual rehabilitation programme a list of barriers allows outline an action plan to overcome them and create a comfortable environment for persons with disabilities. The barrier-free environment will reduce influence of disability and provide integration into society [1,2,3].

The factors characterize the subjective positions by the other persons (attitudes of family members etc.) and subjective one by an individual.

Regarding to the ICF these factors are evaluated and encoded with focus on the individual position. We indicated complexity and variability of factors' features, and significant differentiation of individual perceptions of the factors [4].

We assume it is correct to focus precisely on the subjective assessment by the individual: how he/she characterizes direction (positive or negative) and severity of a factor with regard to the functioning and his/her self-realization. It might differ from an expert's (coder's) point of view both in terms of direction and severity of the specific factor influence. Each individual operates his/her subjective assessment scale. This scale is not obvious for an expert or a participant of a social situation. Therefore, the formulation of specific 'framework' that define the assessment criteria for each environmental factor from the Chapters 3 'Support and relationships' (e3) and 4 'Attitudes' (e4) as external samples to the interviewee is not only incorrect, but incompatible with the ICF objectives.

Methods & Materials

Persons with disabilities due to impairments in the musculoskeletal and sensory systems were examined at St. Petersburg Scientific and Practical Center of Medical-Social Expertise, Prosthetics and Rehabilitation of the Disabled named after G.A. Albrecht. Experts entered information into the medical information system (MIS) qMS to get uniformity in data collection, analysis, and comparison. MIS qMS provides collecting clinical data in accordance with approved medical standards and adding special sections into description of a patient.

Now the workstations for doctors and the experts contain sections of the ICF to describe body functions, body structures, activities and participation, and severity of impairments. Psychologists developed questionnaires for the chapters 'Support and relationships' and 'Attitudes', and the appropriate sections became available for the experts involved into the research. The feasibility study was fulfilled with the data by 11 patients.

Results

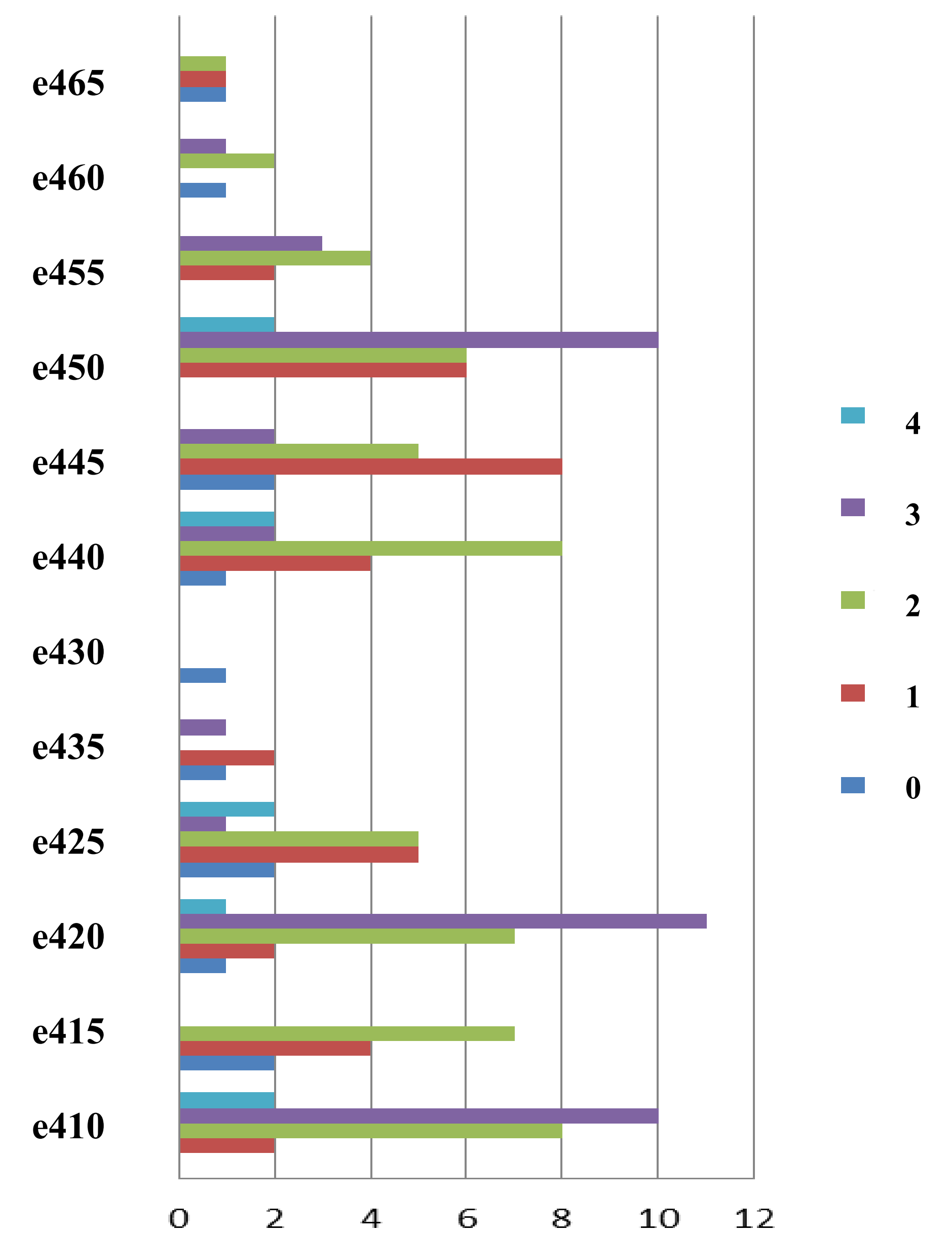
196 patients from urban and rural areas were examined. The experts determined diagnoses according to the ICD-10, the ICF profile, and entered answers the questionnaires mentioned above. It is the base for analysis of the patients' attitudes, support and relationships in society. After matching the outlined body functions and the elements of activity and participation from the personal profile, and the set of rehabilitation services and technical aids from the section in the Codifier of Disability Categories [5], barriers that are associated with the physical environment and require assistive devices to eliminate or compensate them will be identified.

The preliminary analysis of attitudes and relationships as environmental factors demonstrated a hierarchy of the social environmental subjects depending on importance of their attitudes to a person with disabilities (Chart 1). It determined degree of subjective inclusion by the social environment in his/her mind as well. Given analysis results in targets to follow up social environment and areas for correctional work with existing attitudes that presented in different groups towards persons with disabilities.

Conclusions

The research undertaken will enable to develop principles for assessing severity of barriers in the environment of a person with disabilities due to impairments in the musculoskeletal and sensory systems, give standard recommendations concerning reduction barriers severity for professionals and persons with disabilities while forming individual rehabilitation programmes.

Chart 1: Attitudes. Facilitators (%)



Acknowledgements or Notes

Authors thank all the interviewers and patients that participated in data collection.

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ICF framework in education: developing evidence-based practices for rehabilitation and assistive device services

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Introduction

Evidence-based practices highlight that considering the provision of assistive device and rehabilitation services individually, is a key element in planning and carrying out successful services that enhances the clients' functional ability and participation in their everyday life. This challenges service providers to evaluate clients' health and functioning through all the dimensions of International classification of functioning, disability and health (ICF), and requires strong multiprofessional approach often over organizational boundaries. Adoption of a holistic approach to clients' functioning and learning to apply ICF in a multiprofessional team, also offers a challenge for health care education.

Therefore, to ensure that future health care professionals have the skills to apply ICF and to work in multiprofessional teams, we must endorse such learning experiences throughout the education process.

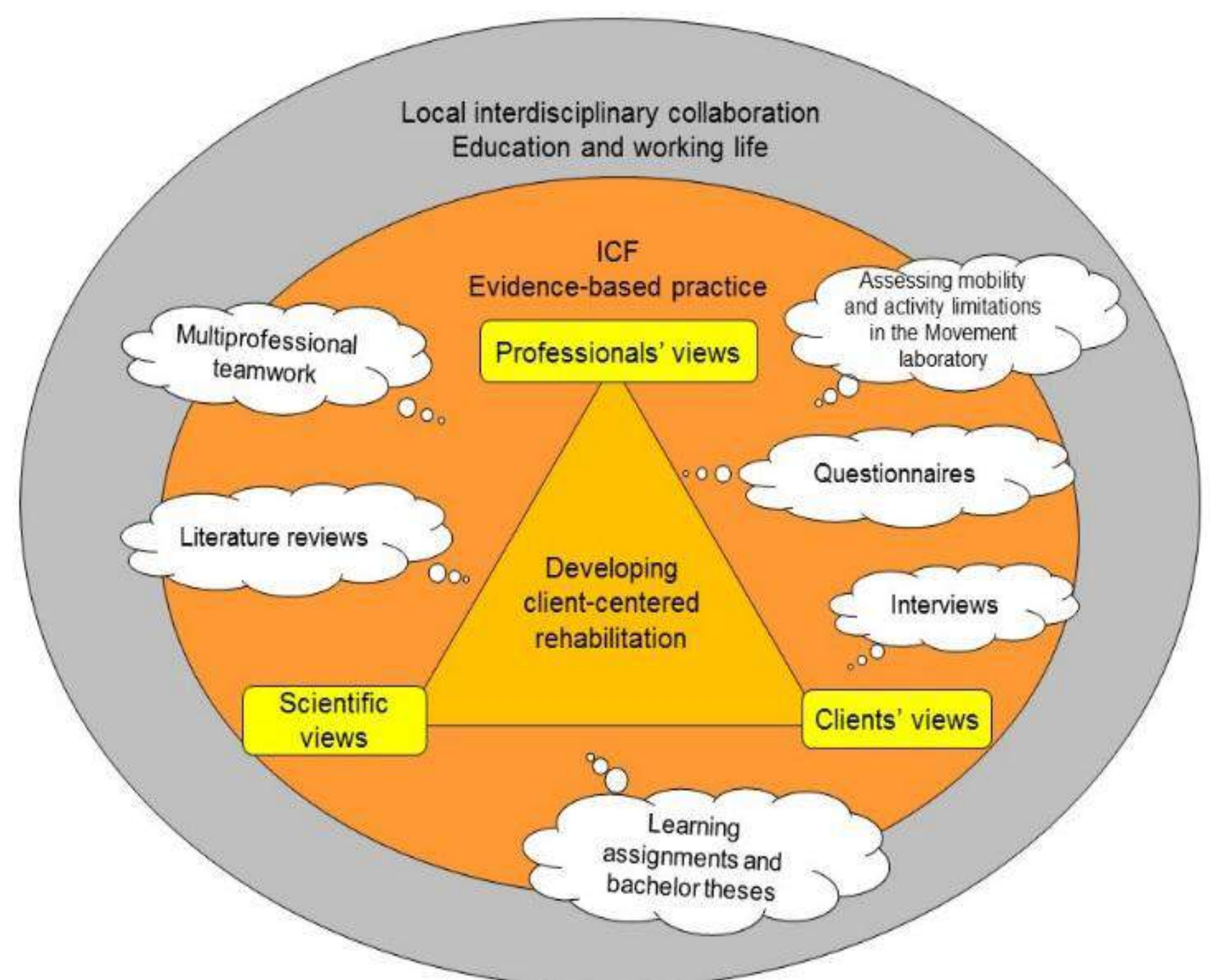
Case presentation

Our project aimed to develop the expertise and networks utilizing evidence-based practices that use ICF as a framework. All in all, 124 students and 14 teachers from different degree programs in Helsinki Metropolia University of Applied sciences and over 10 health care professionals, especially from the City of Vantaa, participated in this project. Students' learning assignments and bachelor theses were based on the ICF framework and aimed to develop evidence based practices for rehabilitation and assistive device services for persons with diabetes and also for persons with lower limb amputation due to peripheral vascular disease and/ or diabetes.

The study protocol was approved by the ethics committee of the local university medical center. Interdisciplinary communication and teamwork were emphasized in every phase of the project.

Data Collection

The practices were developed through the integration of clients', professionals' and scientific views. Action research was applied as a scientific approach and data collection was managed through a mixed- method design.



Discussion

Evidence-based practices are needed to ensure effective and client-centered assistive device and rehabilitation services. Further, ICF as a shared conceptual framework is an essential element in interdisciplinary collaboration. Our project integrated students, teachers and health care professionals to develop together evidence-based practices that would meet the needs of the clients in their everyday life. Furthermore, the project developed networks across organizational boundaries that will further enhance the learning and sharing of expertise and evidence-based practices in assistive device and rehabilitation services.

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SELF-REPORTED QUESTIONNAIRE FOR IDENTIFYING PROBLEMS
BY ELDERS WHILE USING A MOBILE PHONE- A PILOT STUDY

0115

Alakananda Banerjee, Robins Kumar, Pankaj Kumar Sahi

ABSTRACT: With a global increase in elder population, the WHO Active Ageing Guideline have been frame worked in many counties to bring about an opportunity for elders to lead a better quality of life. Mobile phones can improve communication and create health awareness which may enhance Active Ageing in the community. Elderly face many problems while using mobiles. This pilot study focused on making a self reported questionnaire(SRQ) based on International Classification of Functioning(ICF) to understand problems faced. Results of study show that the SRQ had good reliability for capturing such information.

Introduction

With a global increase in elder population, the WHO Active Ageing Guideline have been frame worked in many counties to bring about an opportunity for elders to lead a better quality of life. Mobile phones can be an important part of Active Ageing as it helps communication, which can enhance social participation, help emergency situation and general delivery and dissemination of information.

A self reported questionnaire based on selected ICF codes from the ICF Geriatric Core Set can be used to find out problems of elder using a mobile phone.

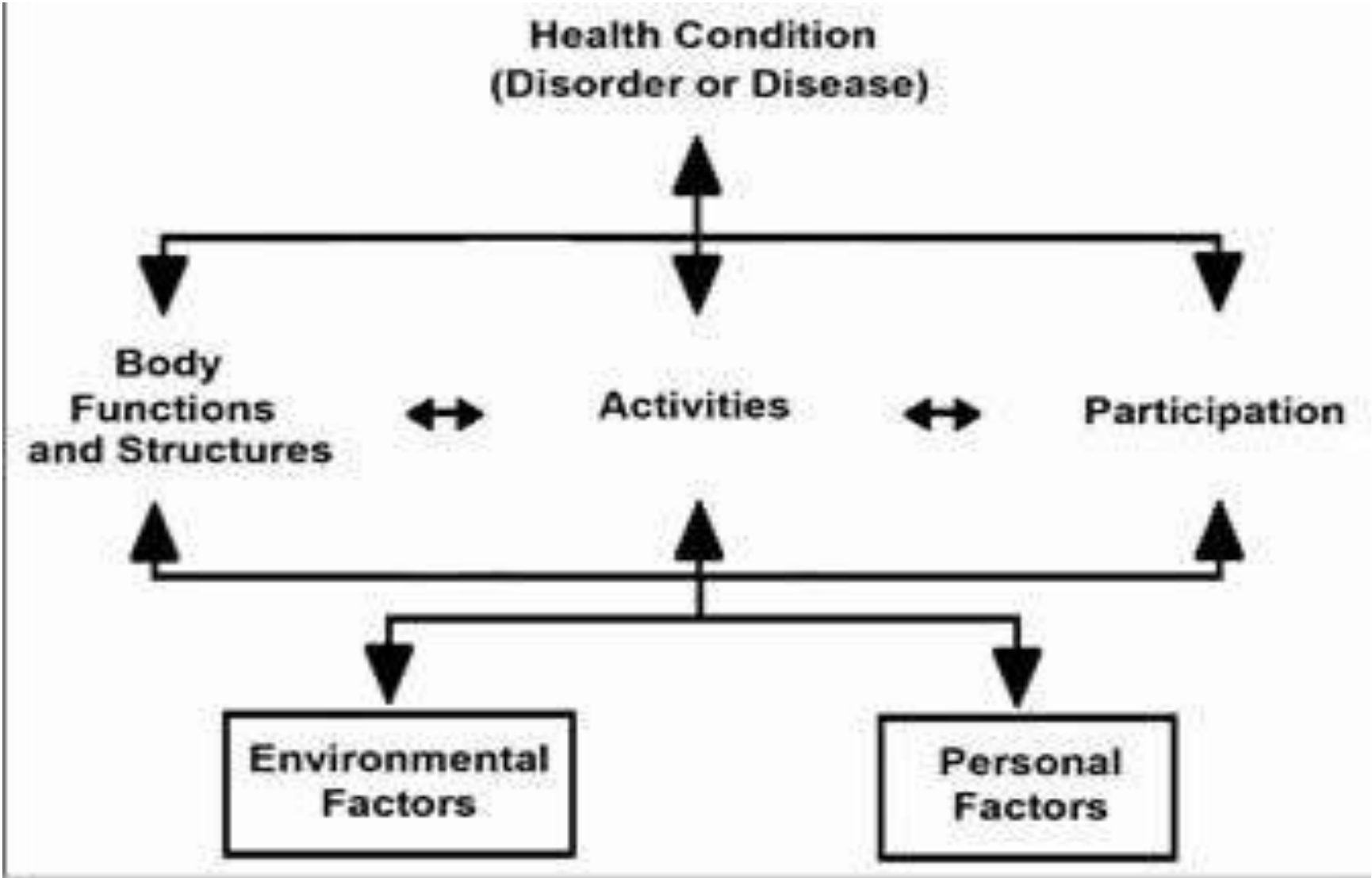


Fig 1: International Classification of Functioning Model

Review of Literature

Problem of elders with mobile phone interface

- Physical**
 - Shapes, colours, textures, and sizes.
- Perceptual**
 - visual-spatial relationships including arrangements of buttons and the mapping between screens and buttons.
- Functional**
 - Mapped between visual-spatial features/relationships on the mobile and the meanings and functions they represented
- Conceptual**
 - Various functions of mobile phones, their concepts, operational procedures and the service they can provide

Problems in elderly while using mobile phone

- Physical**
 - Hand motor function
 - Hand sensory function
 - Structural impairment
 - Vision, auditory and speech function
- Cognitive**
 - Memory
 - Visual-spatial
 - Perceptual
- Social**
 - Family, friend, relatives support
 - Light exposure

Methods & Materials

Review of literature to find out the problem with mobile phone interface and elderly in using mobile phone.

Selection of ICF codes from ICF Geriatric core-set based on 8 linking rule of ICF

Modify the ICF code component into Pre test SRQ by focus group (PTist, OTist, Social worker, mobile phone hardware developer) , Total selected codes=36 Body function- 15 Body structure- 1 Activity and participation- 12 Environmental - 8

The area of study was a local Senior Citizen Organization at Chattarpur Extension, New Delhi. The pre test SRQ was administered on 31 community educated elders who could read/write English and use a mobile phone (Male/Female >60)

10 questions were deleted from the questionnaire due to no response from respondents .and those which did not relate to usage of mobile phones. Formatted questionnaire were again discussed by focus group and 2 questions were added to check the general health and problems which elders faced in daily life in past one month

Final SRQ=26 ,Body function- 11 ,Body structure- 1,Activity and participation- 9 Environmental – 5

Test retest reliability was done by inter rater and intra rater reliability methods

Results

N	Sex		Age		Using phone	Educa-tion		Profession	
	Male	Fe male	Mean	Range		Yes	No	Retired	Self employed
31	17	14	70	60-83	100%	94 %	6%	94%	6%

Fig 2. Descriptive analysis
Our estimated intra rated reliability is 0.959, with 95% CI (0.917- 0.980) at Pearson correlation (p<0.001)

Our estimated inter rated reliability is 0.882, with 95% CI (0.770- 0.941) at Pearson correlation (p<0.001)

-Intra-Rated Reliability- r=0.9598 (p<0.001) is good reliability.
-Inter-rated Reliability- r= 0.8826 (p<0.001) is good reliability.

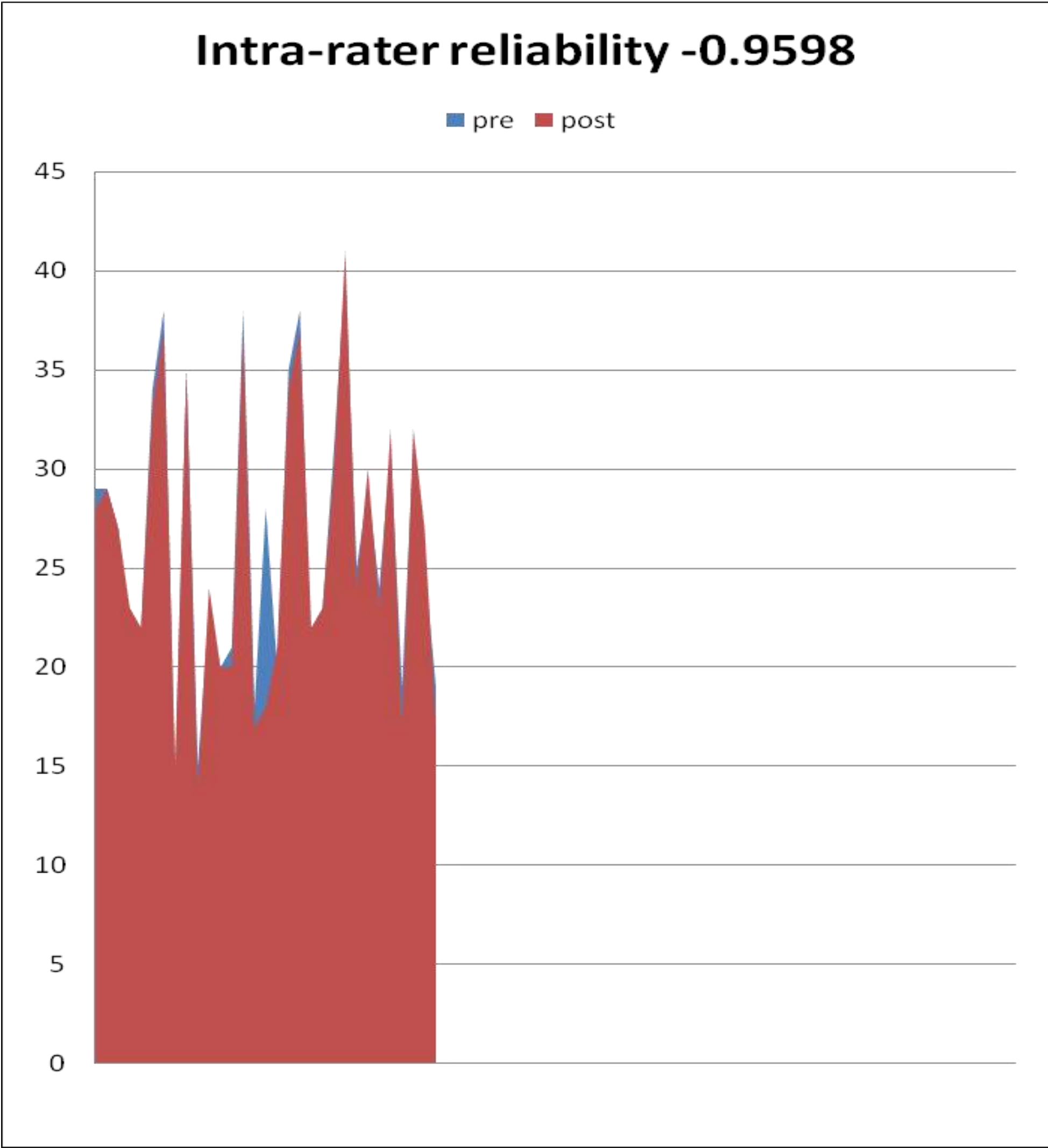


Fig 3. Intra-rated Reliability

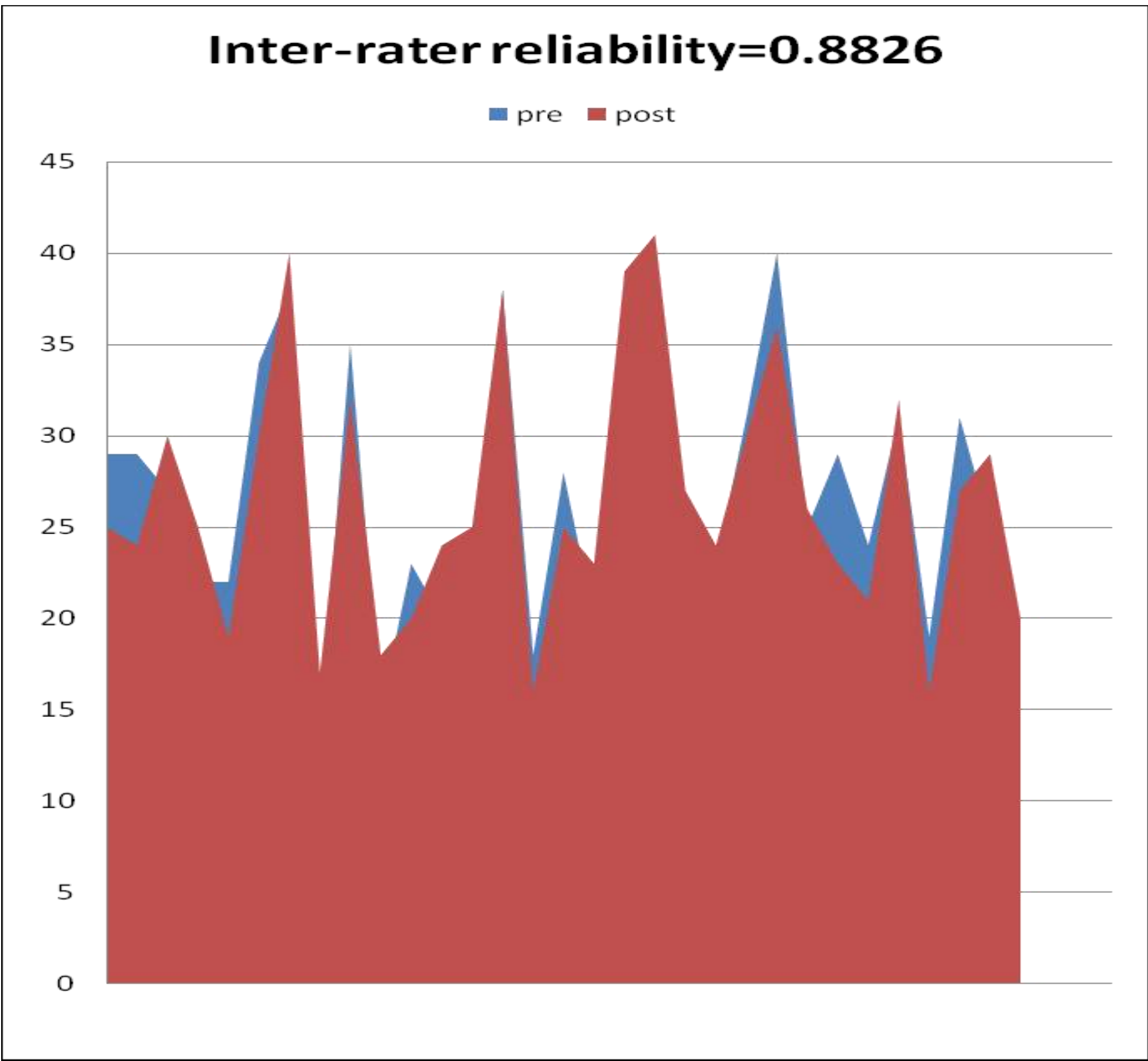


Fig 4. Inter-rated Reliability

Conclusion

Future Study: Reliability of SRQ on larger sample size and Validation of SRQ.

A self-reported questionnaire based on ICF Codes can be a reliable tool for an elderly documenting his/her problems while using a mobile phone.

Self reported questionnaire based on ICF Codes can be the future of development of mhealth applications.

Acknowledgements or Notes

We thank Max Super Specialty Hospital and respect worthy elder subjects of Senior Citizen Organization at Chattarpur Extension, who made this study possible. The study was funded by Dharma Foundation of India,IRB Approval from Max Super Specialty Hospital.



AN OBSERVATIONAL STUDY TO UNDERSTAND THE ATTITUDE OF
ELDERLY TOWARDS COMMUNICATION AND EDUCATION
TECHNOLOGY, IN NEW DELHI, INDIA.

0116

Alakananda Banerjee , Vasvi Kapadia, Pradeep kumar ray, Padmanesan Narasimhan, Robins Kumar,
Pankaj Kumar Sahi

Abstract This study aims To understand attitude of community dwelling elderly in India towards communication and education technology. The study has been conducted involving 300 elderly participants from semi-urban areas in New Delhi. The survey had been conducted using the International Classification of Functioning, Disability and Health (ICF). Our study results feed into India’s national policy of promoting technology by showing that elderly individuals were positive about embracing newer communication and education tools.

Introduction

Assistive technology incorporates a wide variety of devices. Mobile phones, television and internet facilities enhances communication and educational opportunities for older persons and may help them to participate in their own health care. Perceptions vary as to whether or not assistive technology has sufficient benefits. Further evaluation and ‘local learning’ is needed. The views and needs of people using assistive technology need to be taken. End user’s attitude towards the technology is crucial factor for any technology adoption. Technology perceived negatively by the users is more likely to be rejected, so it is very important to understand their attitude before introducing the technology. Research shows elders in some developing countries have negative attitude towards communication technology without their acceptance/actual use of the technology, all these benefits cannot be reaped. There is a growing body of research directed towards the attitude of elderly towards the technology and most of these researches have been conducted in developed countries. There is a dearth of literature to understand the attitude of an elderly towards information and communication technology in developing countries, like India.

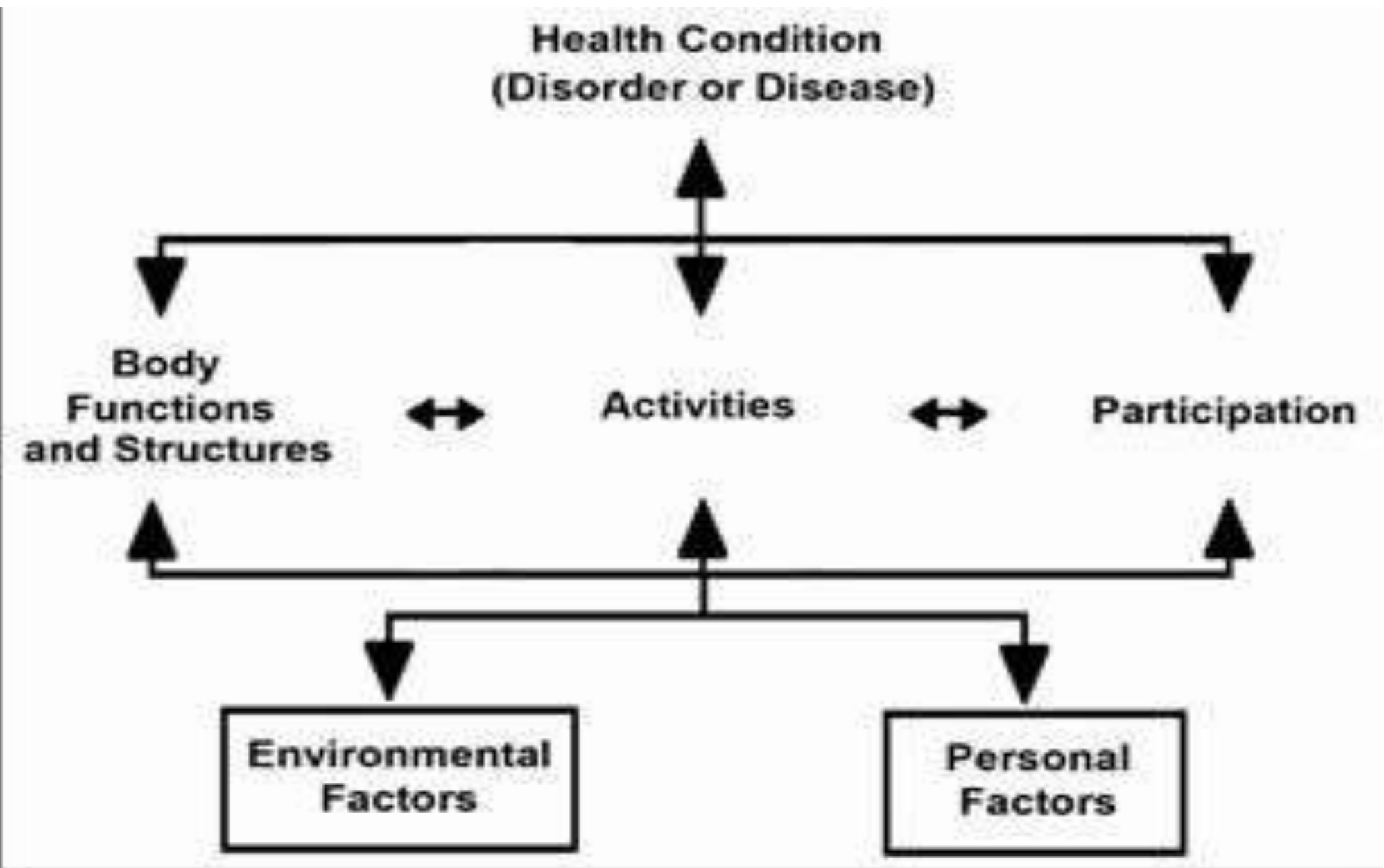


Fig 1: International Classification of Functioning Model

Methods & Materials

The International Classification of Functioning, Disability and Health is used as a conceptual framework for the design and development of Active Ageing for community dwelling elderly. Environmental Factors is a component of the Contextual Factors of the classification, which indicates the extent to which an environmental factor acts as a facilitator or a barrier.

5-point scale is used to indicate the degree to which a particular environmental factor is a facilitator or barrier (WHO 2001:172). Assessments based on the ICF assist multidisciplinary professionals to understand the intended individual’s need, facilitate collaboration across agencies and prioritise goals for intervention. Assistive technology fall into environmental domain under product and technology section which has an effect on other two domain-body structure and function and activity and participation.

Three coding conventions for environmental factors

- 1. As they affect the person overall, without relating the rating to any particular component.
- 2. As they broadly affect each of body structure, body function, activity and participation.
- 3. Against every single body structure, body function, activity or participation code used.

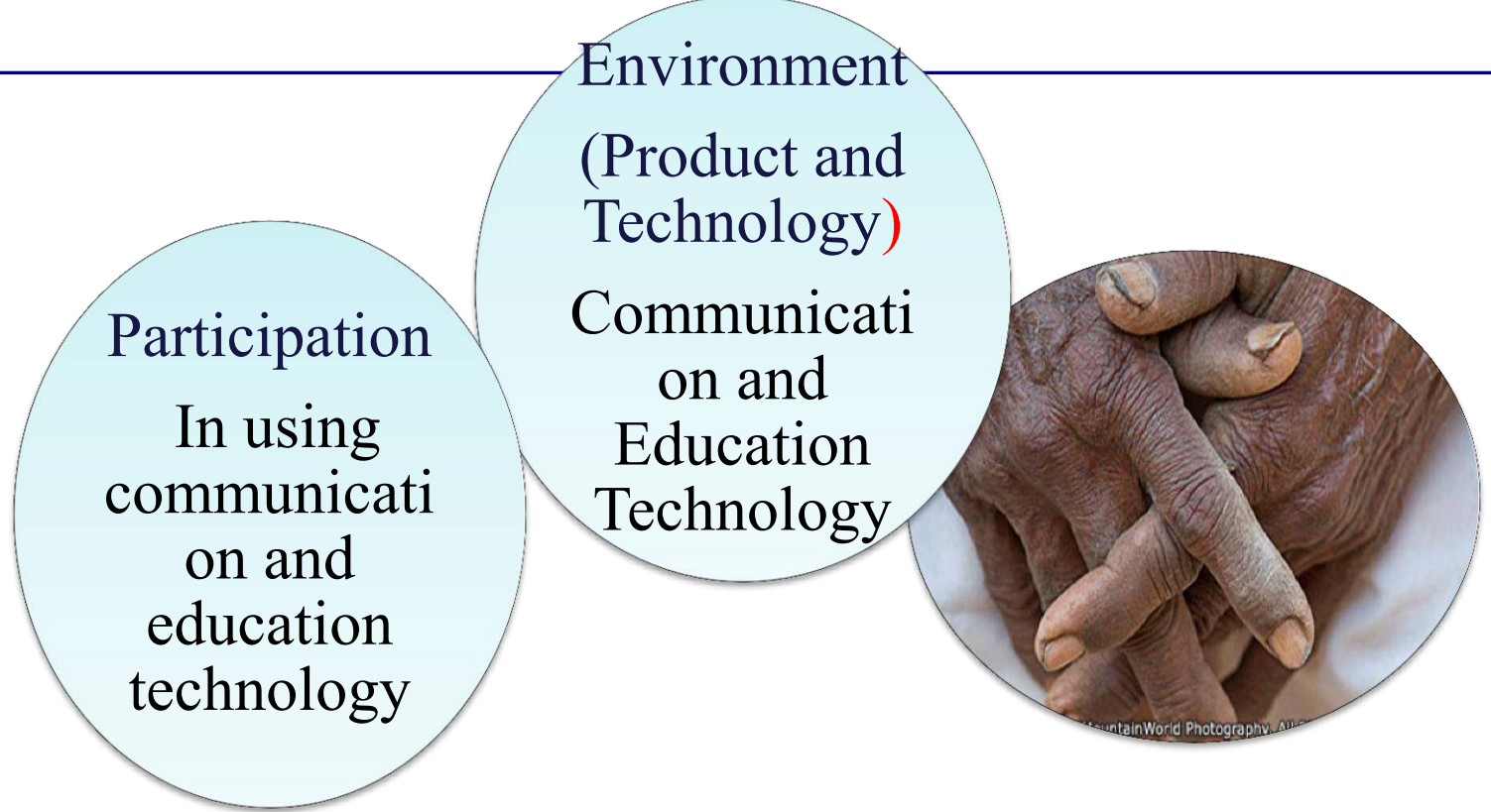
Convention one was selected for assessing communication and education technology use in community dwelling elderly. Two categories From chapter product and technology of environmental domain were chosen :

- 1. Product and Technology for Communication (e125)
- 2. Product and Technology for Education (e130)

Results

	Grades	Communication Technology		Education Technology	
		N (%)	95% CI	N (%)	95% CI
Facilitator (Satisfied)	1	87 (29)	23.87 - 34.13	84 (28)	22.92 - 33.08
	2	24 (8)	4.93-11.07	20 (6.6)	3.79-9.41
	3	31 (10.3)	6.86-13.74	30 (10)	6.61-13.39
	4	113 (37.6)	32.12 - 43.08	117 (39)	33.48 - 44.52
None	0	34 (11)	7.46-14.54	42 (14)	10.07 - 17.93
Barrier (Dissatisfied)	-1	5 (1.7)	0.24-3.16	5 (1.7)	0.18-3.02
	-2	5 (1.7)	0.24-3.16	2 (0.7*)	-
	-3	-	-	-	-
	-4	1 (0.3*)	-	-	-

TABLE 1: FREQUENCY DISTRIBUTION OF SURVEY FINDINGS



Level of satisfaction	Male (%) (n=149)	Female (%) (n=151)	Total (%) (N=300)	P value
Highly satisfied (Scale 4)	37 (25)	61 (40)	98 (32)	0.004
Satisfied*	112 (75)	90 (59)	202 (67)	

TABLE 2: COMPARATIVE ANALYSIS BETWEEN GENDER AND LEVEL OF SATISFACTION IN BOTH COMMUNICATION AND EDUCATION TECHNOLOGY

Satisfaction	Age group 60-79 (%) (n=269)	Age group 80 years and above (%) (n=31)	Total (%) (N=300)	P value
Satisfied	213 (79)	27 (87)	240 (80)	0.35
Neutral or not satisfied	56 (20.8)	4 (12.9)	60 (20)	

TABLE 3: COMPARATIVE ANALYSIS BETWEEN AGE AND ATTITUDE IN BOTH COMMUNICATION AND EDUCATION TECHNOLOGY

Conclusion

The attitude is an influential predictor of their intention to adopt innovation in communication and education technology. The respondents in this study reported their positive attitude to these technologies. Assessments based on ICF assist professionals to understand the intended individual’s need, facilitate collaboration across agencies and priorities goals for intervention. A holistic information guided by evidence-based practice and the ICF, assists technologists and healthcare providers professionals in decision-making device features and the enhancement of user’s well-being. The World health Organization (WHO) International Classification of Functioning (ICF) offer a model to guide and integrate the complex aspect of assessment for mhealth technology. ICF in combination with using well-established assessment and outcome instruments ensures evidence-based decision-making, when recommending mhealth technology.

Acknowledgements or Notes

We thank Max Super Specialty Hospital and respect worthy elder subjects of Retired Railways Employee Welfare Association, Gurgaon and Efforts group, Safdarjung Enclave, who made this study possible. Funded by Dharma Foundation of India IRB approval Max Super Speciality Hospital, New Delhi

CLINICAL REASONING AND DECISION-MAKING ICF-BASED MODEL FOR PHYSIOTHERAPY STUDENTS

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Abstract The purpose of this study was to develop a clinical reasoning model to record a person's problems in terms of the ICF components, raising the awareness of multiple components that influence human functioning, and a problem solving model based on the ICF and on the APTA's Guide to Physical Therapist Practice², to be used by physiotherapy (PT) students in clinical education and practice placement context.

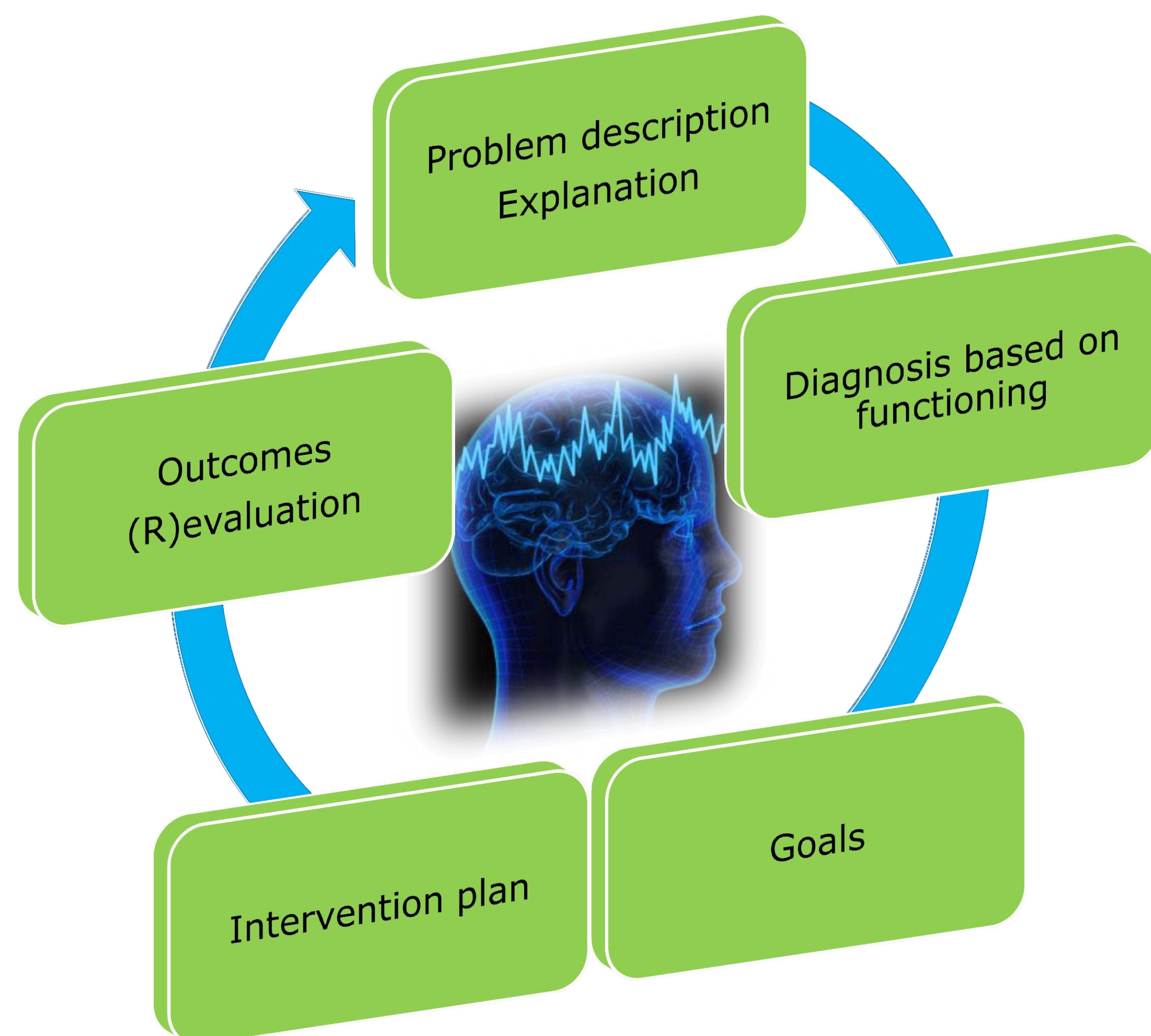
Introduction

The International Classification of Functioning, Disability and Health (ICF)¹ is a multi-purpose tool intended for a wide range of uses in different sectors, for example as an educational tool in curriculum design. Education and research in physiotherapy should exceed the objectives of explaining causality or effects, and be interested primarily in understanding the problems, context, hypotheses of solutions and outcomes, allowing written assessments and clinical decision-making.

Methods & Materials

The model, adapted from the Granlung's Intervention Cycle³, includes five topics: problem description/explanation, diagnosis based on functioning, goals, intervention plan and outcomes/evaluation and considers the components of health as defined by the ICF; depending on the problems, goals might be addressed. The intervention plan will depend directly from the problem explanation components. The diagnosis based on functioning may be expressed in terms of APTA patterns, movement dysfunction or may encompass activities & participation categories of ICF.

Chart 1: Interactions between the topics of the clinical reasoning model for physiotherapy



PT students were introduced to the model before their first clinical placement, were invited to write up cases from their clinical placement to be discussed weekly in lectures, study circles, tutorials. Periodically, a focus group methodology (with students, tutors and academics) was used to content analysis, collect and generate valid information and choose the evidence based interventions to ensure effective learning process and acquiring competencies in clinical settings.



Results

After 3 years-project, the model proved to be an effective resource to PT students' clinical reasoning and decision-making that can help improve consistency of documentation and communication between clinical tutors/academics and students as well as student and client.

Other benefits were perceived:

- collaborative practice;
- increased legibility and speed of comprehensive documentation;
- generalized charting practice in educational contexts;
- and, facilitation of progressive memory construction of diagnosis based on functioning.

The weaknesses reported are the structural complexity of ICF and the limited space to document data.

Discussion and Conclusions

The model helps students make appropriate clinical decisions. Students are more confident in generating information and choose the most efficient solutions to obtain good insights for users of health services (e.g. patients and their collectives) and for their own learning process. Clinical tutors and academics realize how students are thinking and have valid indicators to follow-up the learning process.

PT students' process to record problems, their explanation, diagnosis, adjusted goals and treatment plans is, simultaneously, adapted to the actual paradigms of health and functioning. Strategies to improve the model usefulness for clinical practice were suggested and included an ICF-based software, the smartherapy®. The visual report issued helps communication between users and allow to recognize patterns over time. A free version in Portuguese, Spanish and English languages for research in Physiotherapy is available by request^{4,5}.

Acknowledgements

The author gratefully acknowledge the support for the development of the *Functioning Assessment Model* by the physiotherapists, clinical instructors and PT students from ESTeSC Coimbra Health School, who have devoted a great amount of time and motivation to the project.

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THE INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH (ICF) TRAINING MODEL TWELVE YEARS' EXPERIENCE IN PORTUGAL

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Abstract This report presents a training model developed and implemented in Portugal. Immediately after the ICF publication, in 2001, ESTeSC Coimbra Health School started to invest in in curriculum design and to raise awareness within physiotherapy students, clinical instructors and teachers. However, the new functioning and disability model needed to get quickly to clinical practice and, therefore, there was a continuing education program.

Introduction

The International Classification of Functioning, Disability and Health (ICF) is a multi-purpose tool intended for a wide range of uses in different sectors. The ICF captures human functioning as the result of the interaction between body and environment, measured through activity and participation and gives a broad perspective and structured way to identify underlying facilitators and barriers to participation of human beings. Social and health professionals and agencies should have knowledge and understanding of the multiple factors that influence functioning and disability. Functioning and disability are complex concepts of interest to a wide range of people including professionals, each with a different philosophy. Education on ICF may start in undergraduate courses but may also continue in the form of continuing professional development.

The purpose of this report is to present a training model developed and implemented in Portugal. The course comprises an Awareness Module (4 hours), a Basic Module (8 hours), and an Advanced Module (12-30 hours), used independently or concurrently, specifically suited to the needs of a target audience and for a particular setting or professional area.

Case presentation

Demands for this face-to-face course come from national institutes, professional associations and unions, hospitals or other health institutions, as well as universities (undergraduate) and continuing education programs. Since 2003, the course has changed its teaching/learning methodology to enhance results and applicability by context and developed written education materials, including practical documents to facilitate implementation in particular settings.

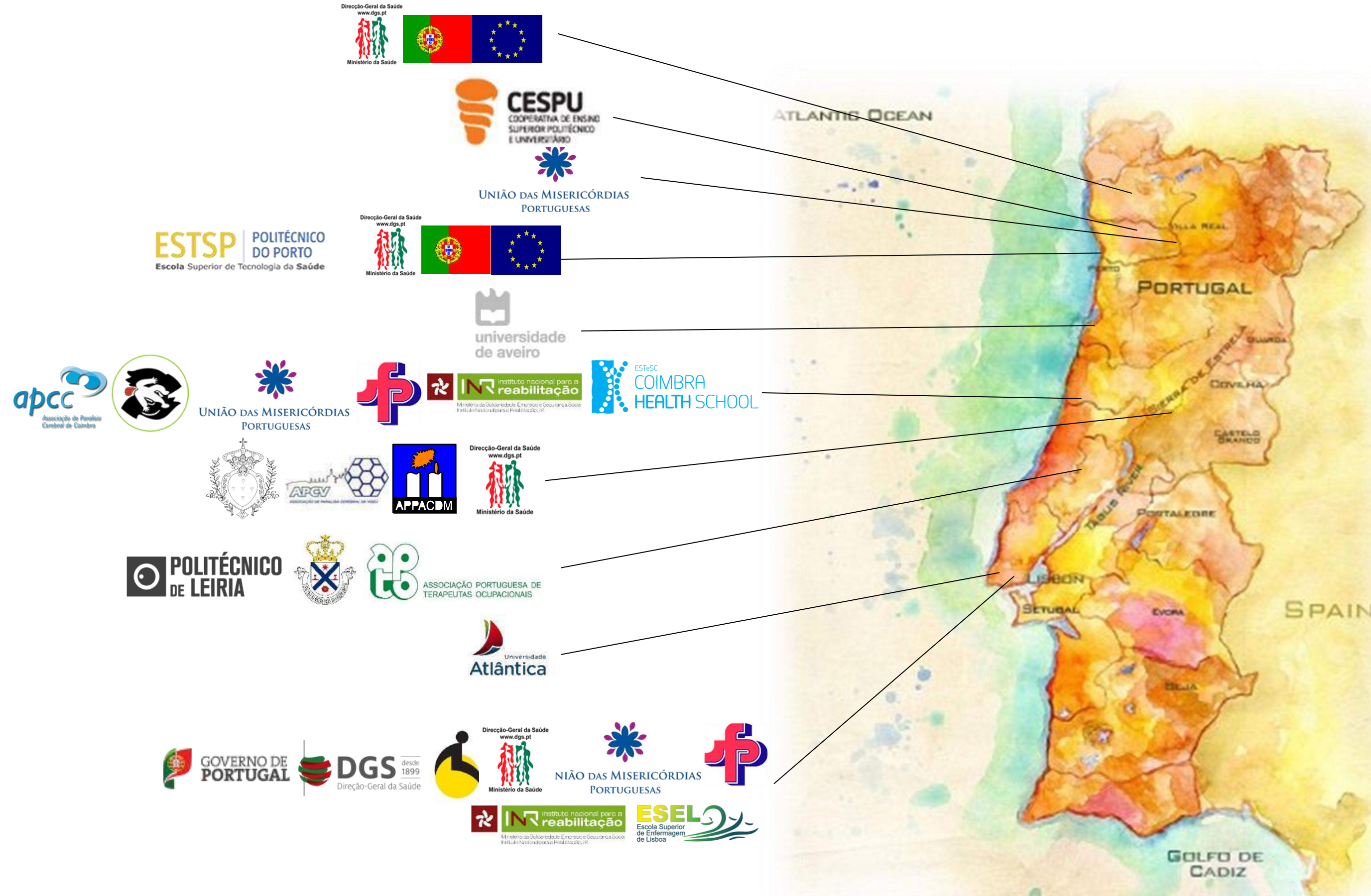
Besides the educational materials from WHO¹⁻², other education and exercise tools were developed to facilitate integration of knowledge³⁻⁵.

- The **Awareness Module** presents the ICF conceptual model, applications, structure, qualifiers, and some examples of codes.
- The **Basic Module** explores in more detail all previous topics, particularly, the codes and qualifiers, demystifying its' complexity and explaining the differences between assessment instruments and this classification.
- The **Advanced Module** spreads out over time (between one to several weeks or months), and includes oriented tasks, previously defined, like in-service meetings to address objectives and expected outcomes, development and training on the use of clinical documentation based on ICF, codification and study cases (hands on approach).

Results



Chart 1: National institutes (health and social sectors), professional associations, unions and educational institutions promoters of ICF courses



Physiotherapists who assisted to any of the modules **n≈790**
Other professionals who assisted to any of the modules **n≈465**

Discussion and Conclusions

- Positive insights from this experience shown by a **knowledge improvement** about ICF biopsychosocial model and its impact on health and functioning.
- Studying **ICF based in clinical cases** revealed to be an **effective strategy to implement ICF** model and classification in practice.
- Study cases were a **starting point to wider research** projects to identify the most significant ICF categories to use in a specific context.
- Recently we start a pilot with **practical exercises in real time** with patients/person with disabilities face-to-face, a promising challenge to the in-service continuing education.

Acknowledgements

The author gratefully acknowledge all national institutes (health and social sectors), professional associations, unions and higher educational institutions for their interest and support on ICF courses development and implementation.

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Teaching ICF in the web-course

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University of Eastern Finland/Open University

Abstract

ICF-classification has been used both as a theoretical framework and topic in the 'Accessibility, aids and functioning 5 ECTS' web-course, which has been organized since 2007 as a part of Rehabilitation science web studies 25 ECTS. Students found ICF as an important tool to evaluate and describe biopsychosocial functioning. However, the lack of classroom teaching challenges the learning process related to ICF-classification.

Introduction	Case description	Discussion
'Accessibility, aids and functioning 5 ECTS' web-course has been organized since 2007 as a part of Rehabilitation science basic web-studies (25 ECTS). These web-studies are conducted by three Open Universities, which come from Lapland, Oulu and Eastern Finland Universities. Yearly, approximately 70-90 student participates in the web-studies from all over the country or abroad (teaching language is Finnish). Students study web-studies alongside their work, or as a part of bachelor or master degree in the health sciences. Preceding educational or occupational diploma is not requested for. However, most of students work as a physiotherapist, occupational therapist, nurse, physician, teacher, rehabilitation counselor or social worker during their studies. The Rehabilitation web-studies are multidisciplinary too, including in theories, learning material and practical methods of medical, social, occupational and educational rehabilitation.	The 'Accessibility, aids and functioning 5 ECTS' web-course contains learning material (web-material and ICF-book) and two assignments relating to accessibility and ICF-classification. The ICF-classification is used both as a theoretical framework and topic in the assignments. Aimed competence involves profound learning relating to the interaction of biopsychosocial functioning and accessibility in the frames of environment, participating and activities at work and home. To achieve these goals, students search the best practice/equipment in accessibility and disabled person who needs it. After this, they report/take a photo from the accessibility practice/equipment and then describe (based on ICF-classification) disabled person's functioning. For example, students provide a report from disabled person's shopping in the market using accessibility practice/equipment. The whole operation from disabled person's home, during shopping and back to home is evaluated based on ICF-classification. In addition, students write discussion where they assess how the accessibility practice/equipment supports disabled person to achieve the most optimal biopsychosocial functioning.	Based on students' feedback (collected every year), assignments are found to be practical and they demonstrate clearly the importance of accessibility as a way to achieve the most optimal biopsychosocial functioning in disabled person's life. Students describe the role of ICF-classification as an important tool to evaluate all dimensions of biopsychosocial functioning, participating and environment. However, students found sometimes difficulties to learn the use of ICF-classification without classroom teaching. Self-directed learning in web requires a lot of time and motivation.

Navigationi

Moodle

 Katsaus kurseistani

 Oma profiilini

 Nykyinen kurssi

 EsteettömyysI

 Osallistujat

 Omat kurssini

 Elimistön rakenne ja toiminta 4 op

 EsteettömyysI

 Fysiologian verkkotentit

 Ikääntyneiden arjen esteettömyys 5 op

 Johd_epi_biostat

 Johdkvan

 JOK

Esteettömyys I

Tervetuloa Esteettömyys I 5 op -verkkojaksolle 20.4.-24.5.2015!

Tavoitteet: Suoritettuaan opintojakson opiskelija on perehtynyt laaja-alaisesti kuntoutujan esteettömän fyysisen, psyykkisen ja sosiaalisen toimintaympäristön luomiseen ja ylläpitämiseen. Opiskelija ymmärtää esteettömyyden merkityksen kuntoutujan maksimaalisen työ- ja toimintakyvyn edellytyksenä. Lisäksi opintojaksolla arvioidaan ICF-mallin avulla kuntoutujan toimintakykyä ja toimintaympäristöä.

Tuutorit: Toimintaterapian lehtori Anne Kanto-Ronkanen ja TtM, KM Maria Luojus. Oppiaineen vastuuhenkilö on kuntoutuksen dosentti Eeva Leino.

Aikamitoitus: Yksi opintopiste vastaa 27 h työmäärää, jolloin kokonaistyömäärä on 135 h. Mitoitus on jaettu siten, että materiaaliin perehtyminen vie 40 h, 1. tehtävä keskusteluineen 30 h ja 2. tehtävä 65 h.

Opintojakson tehtävien palautusajat:

Tehtävä 1: Esteettömyys ja syrjintä, palautus verkkokeskustelualueelle 4.5.2015 mennessä.
Tehtävä 2: Esteettömyys ja ICF-luokitus, palautus verkkopalautuslaatikkoon 24.5.2015 mennessä (tehtävän voi tehdä pareittain, katso ryhmäjako-tiedostosta että oma pariisi kuuluu samaan ryhmään).

Oppimateriaali: Verkkomateriaali

Osallistujat

 Osallistujat

Aktiviteetit

 Aineistot

 Keskustelualueet

 Tehtävät

Viimeisimmät uutiset

Lisää uusi aihe...

Anne Kanto-Ronkanen

5 touko, 10:45

Tervehdys

Maria Luojus

22 huhti, 08:43

Tervetuloa opiskelemaan Esteettömyys -jaksoa

Vanhat aiheet ...



ICF AS A REFERENCE IN EVIDENCE-BASED PRACTICE

Authors: Ira Jeglinsky¹, Arja Veijola²

¹Arcada, University of Applied Sciences, Helsinki, Finland

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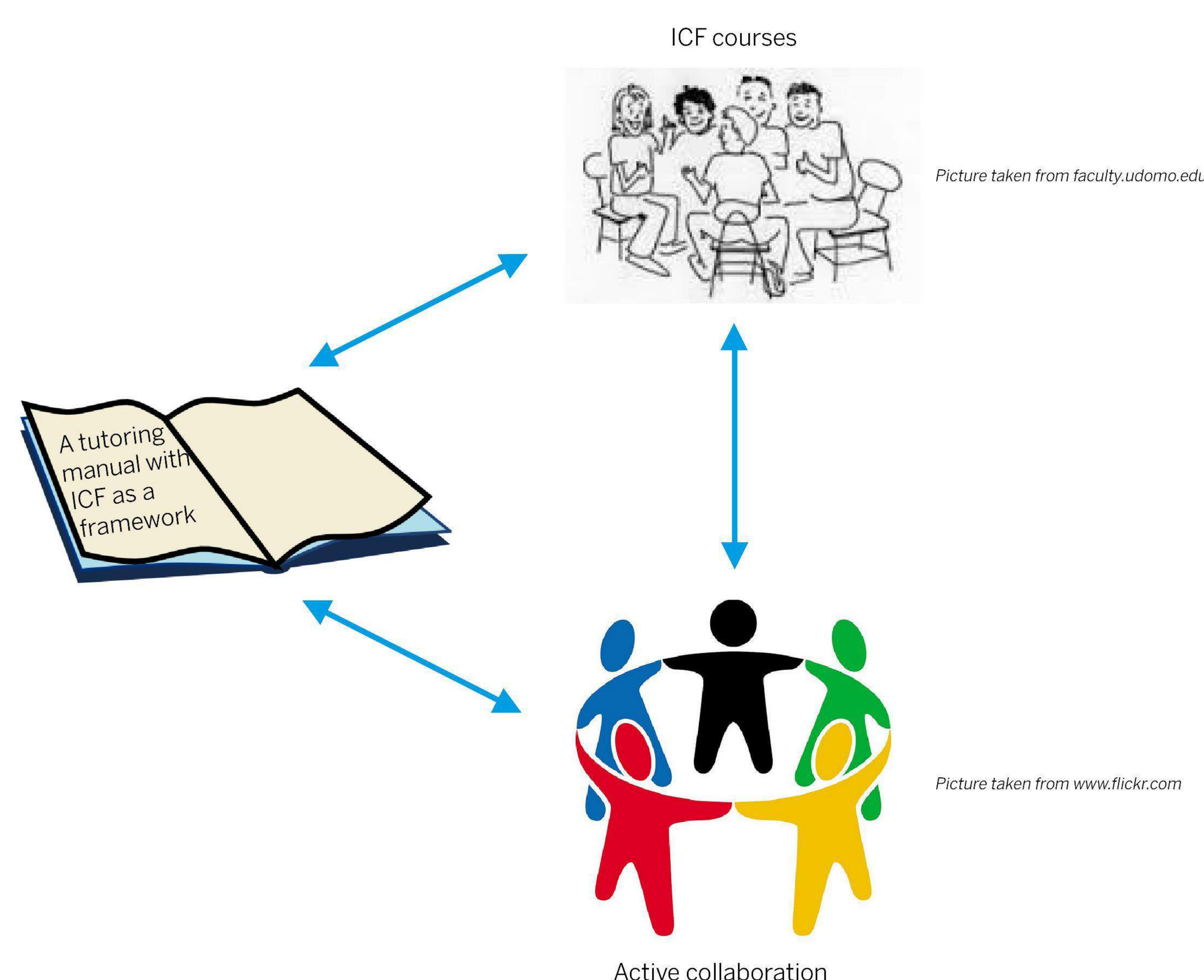


INTRODUCTION

The new reform of higher education in Finland emphasizes universities of applied sciences to be responsible educators as well as reformers of working life. At the same time our welfare society call for welfare services which are effective, and are based on best available evidence. The development of such effective services requires close collaboration between higher education, working life and research organizations. Additionally both educators and working life experts need competences, a common language and a frame of reference in their collaboration.

AIM

The purpose of the project was to develop permanent or long lasting collaboration between higher education and clinical experts to increase both partners' competencies and skills in evidence based practice as well as enhance the development of good practices.



CASE PRESENTATION

A working-life project (2014-2015) was conducted to develop collaboration between higher education and clinical experts to increase both partners' competencies and skills in evidence based practice. Additionally the goal was to enhance the development of good practices in the field of social and healthcare. A network with seven universities of applied sciences was established, each university started collaboration with public as well as private sector. The needs of local evidence based practices were defined in discussions between lecturers, students, researchers and service providers. The ICF was decided to be the frame of reference as well as the common language within the project. Students, teachers, clinical experts in working life, as well as researchers, were educated in the concept of ICF. A tutoring manual was developed consisting of a model of developing evidence based clinical recommendations. The ICF was used as a framework in the manual. Short two day courses were held according to the education model by WHO and National Institute of Health in Finland (THL). Additionally an ICF online course is under construction, to make it possible for students, teachers, and clinicians to educate themselves in the ICF concept whenever needed.

CONCLUSIONS

The project is still ongoing, but we can already see a greater interest in the ICF among students, teachers and clinicians. Through the manual and two day ICF course the participants gets a general knowledge of ICF and its use. It seems however, that not until the ICF is implemented in the context of the students', teachers' and clinicians' everyday work a trough understanding of ICF is established.

ACKNOWLEDGEMENTS

The authors thank the VATA working group for great collaboration and The Finnish Ministry of Education and Culture for financial support for this study.

ICF-CY as an action-directing framework in learning and consulting centre Tervaväylä

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Tarja Kankaanpää, Rehabilitation Counselor MSc**, Ulla Jämsä, Rehabilitation Coordinator, PhD ***

* Oulu University of Applied Sciences, ** Learning and Consulting Centre Tervaväylä, *** Oulu University Hospital

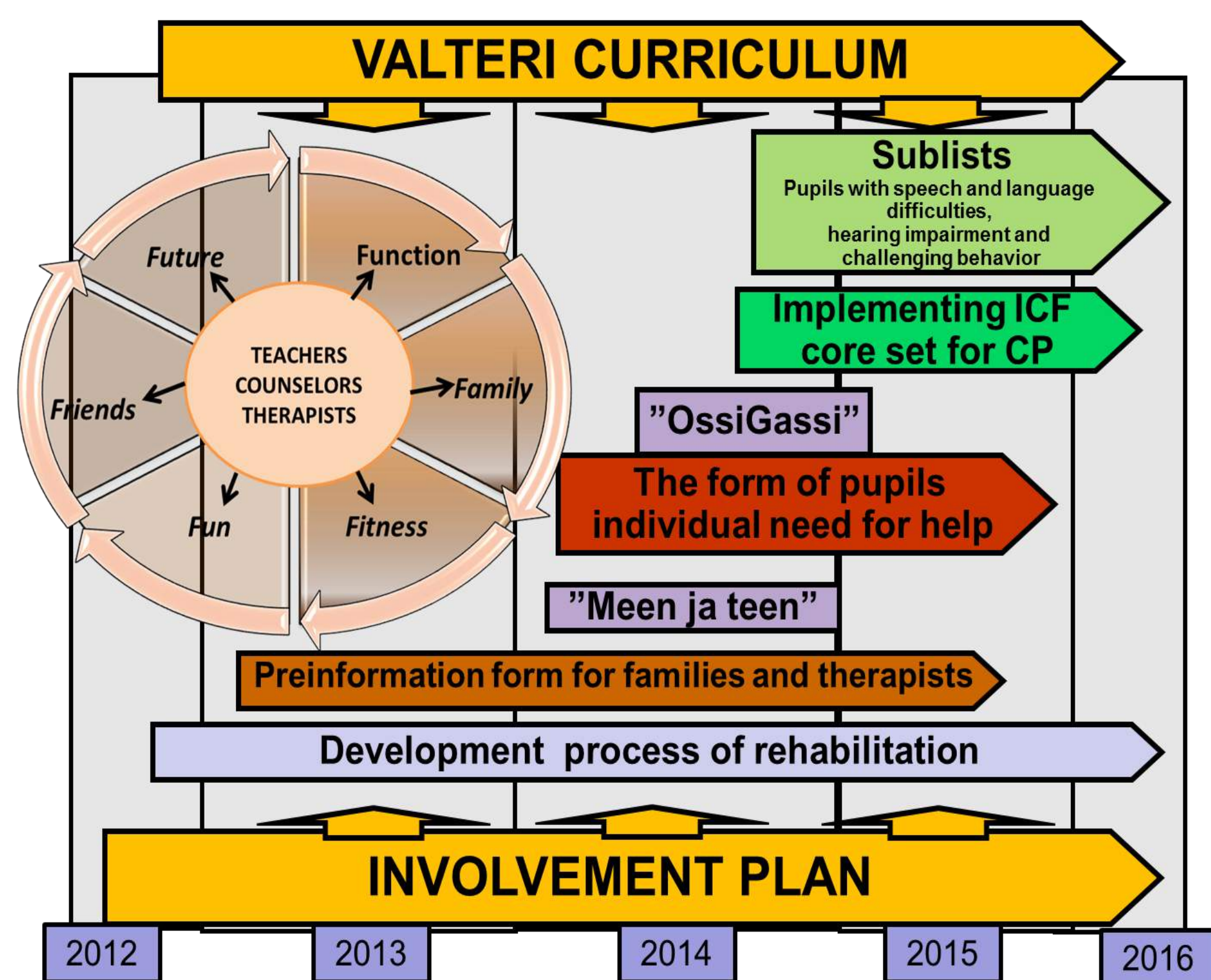
Abstract This action research is the part of the effective and evidence based working methods –project (VATA-project) (2014-2015). The ICF was decided to be the frame of reference as well as the common language within the project. The context of this action is learning and consulting centre Tervaväylä in Oulu, Northern part of Finland. ICF-CY is the framework as well as the goal of learning and developing. We introduce developing process and the outcomes of it.

Introduction

Tervaväylä is the part of Valteri-network, which is a national network of learning and school attendance support services operating under the Finnish National Board of Education. On 1 August 2015, the Valteri-network will become the Valteri Centre for Learning and Consulting. In the last year Valteri-schools have developed Valteri-curriculum, which is based on the national core curriculum. In Valteri –curriculum the focus is on learning environment, working culture and functioning.

The ICF classification of functioning forms the core of this development, the goal of which being to enhance the effectiveness of any multiprofessional support a pupil receives.

A multiprofessional team of the Tervaväylä school had already started to develop the ICF-practices. The purpose of this development was to create a common language and terminology to better facilitate cooperation between professionals of different fields. A group of experts from various fields has worked together to build up the ICF-practice by implementing and further developing tools and practices of the ICF.



Picture 1: ICF based processes in Tervaväylä.

VATA-project

The main aim of the project of effective and evidenced based working is to create in cooperation with the world of work and the University of Applied Sciences new tools and permanent local networks, which contribute to the development of working methods, as well as using the ICF-frame in practice.

Interventions in project:

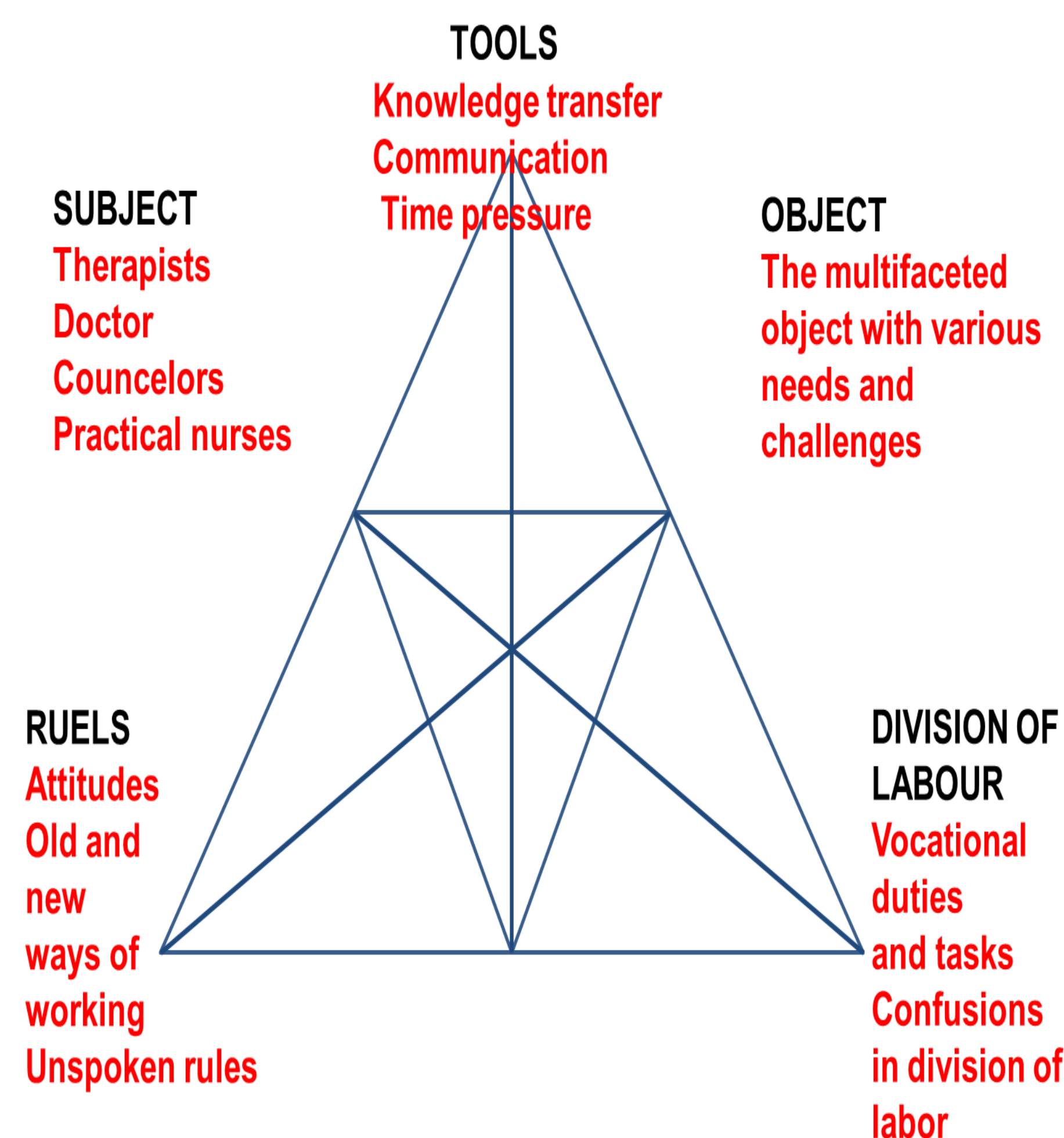
ICF –education (WHO’s model)
workshops

In the beginning we evaluated the theoretical and practical ways of using ICF in Tervaväylä.

Methods & Materials

Cultural historical activity theory gave us the theoretical framework to construction the challenges of ICF-implementation. We constructed the problems and challenges of every day work by using the the System Activity Model by Engeström (1987).

Human behavior is taking place in developing, object-driven activity systems in which individuals act as subjects. They are motivated by a personal sense constructed from collective, societal object of activity. They are using a variety of tools and taking into account the rules and divisions of labor of the community they are part of.



Picture 2: The challenges of ICF-implementation (modified by Engeström 1987)

Workshops themes:

Structure of meetings
Multiprofessional interaction
Agreeing on common rules
Development of documentation
Creating a common practice

Results

By using the Participation Action Research Methods in workshops the workers recognised, framed and started to develop the basic elements of teamwork. That is necessary when we start to work in a new way; using ICF as the frame of multiprofessional work.

Evidence based practice is going to be part of every day work. Evidence based knowledge is finding to ways of applying to practice. Theses and literature reviews will produce knowledge about evidence.

Joint development has already produced ICF-based tools for professionals to utilize with rehabilitation, education and treatment. The revised Valteri-curriculum, which features functioning based on the ICF-classification as one of its cornerstones, has also had a significant impact in directing the course of development.

The development process has also produced common ICF-based tools, which are used by the entirety of personnel: a pupil’s involvement plan based on F-words and and assessment form for personal aid required by a pupil.

The implementation of the ICF Core Sets for Cerebral Palsy and sublists (pupils with speech and language difficulties disorders, hearing impairment and challenging behavior) are underway.

Conclusion

The practical application of the ICF-framework and tools is a long and partly hard process. ICF-development requires that all employees have the opportunity to participate in various ICF-interventions.

A two-day ICF training course by itself will not be sufficient, as the development must be designed as a target-oriented process which is linked to the operational environment. Another requirement for development is that high-level competence with the ICF will be available for directing the process.

As no single ICF-practice exists, each work community must form one themselves. This development has been aided by ICF-materials provided by both the WHO and THL, Finland (National Institute for Health and Welfare).

Instructing the principles of ICF to personal in small and medium size businesses

Helsinki, Finland

P206

Authors: Sirkka-Liisa Kolehmainen, senior lecturer, Metropolia University of Applied Sciences
Mikko Flander, Director of Rehabilitation, Kaisankoti Manor Spa

Abstract

In Finland, there is a lot of work to do in implementing the principles of the International Classification of Functioning, Disability and Health (ICF) by small and medium size businesses in the field of rehabilitation and health care. After the first ICF Book was translated into Finnish in 2004, it has been a part of the education in the universities of applied sciences (UASs), but mainly on conceptual and model level. However, after the publishing of the digital version of the book in 2014, there has been a real possibility to implement the coding guidelines for ICF in Finland. This paper presents an educational case study from private rehabilitation sector to find out how to adapt ICF as a development tool by the multiprofessional rehabilitation teams in Blended Learning process. The learning outcome was great, increased 37 %.

Introduction

In 2014 we had two international ICF workshops organised by WHO ICF Research Branch, National Institute for Health and Welfare (THL) and Kela (The Social Insurance Institution of Finland). In addition, THL and Kela organised the first Finnish workshop based on international courses. Teachers from UASs served as tutors and they joined in the ICF educators' network in order to develop the education in Finland. In our workshop that was organized in August at Metropolia UAS, we had 19 participants. This paper presents an educational case study from private rehabilitation sector, Kaisankoti Manor Spa, what is located in Northern Espoo, 25 kilometres from Helsinki and the Helsinki Airport. The main purpose of the investigation is to find out how to adapt ICF as a development tool by the multiprofessional rehabilitation teams in Blended Learning process.



Figure 1: The participants organized in three groups: vocational, musculo-skeletal and mental health rehabilitation.

Case presentation

The course was held in Kaisankoti Manor Spa from February 27th to April 10th 2015. The participants included 10 physiotherapists, 3 doctors, 4 psychologists, a public health nurse and a nutritionist. They were organised in three groups: vocational, musculo-skeletal and mental health rehabilitation.

We used an electronic pre-training questionnaire to identify the level of ICF knowledge of the participants. The course was organized according to the Blended Learning principles and included an introduction lesson and e-learning via Moodle platform. The introduction lasted 4 hours and was based on WHO Research Branch materials translated into Finnish by THL. All ICF related materials and links were given in Moodle. The teamwork period lasted 6 weeks and consisted of a number of exercises that helped the participants to adapt ICF to their daily routines. Every group applied ICF to their documentation and marketing, and presented their work at the final seminar that was held April 10th 2015. Everybody filled in a post-training questionnaire and gave feedback of the course.

Results

The percentage of right answers among the participants concerning the ICF knowledge increased from 40 % to 77 %. Participants' satisfaction with the contents and methods of the course was good. "ICF gives us great tools in developing our service and quality. It also makes our work easier."

Discussion

The usefulness of the ICF for Finnish small and medium size businesses in rehabilitation and health care is obvious. This educational case study shows that it is possible to successfully adapt ICF framework by using a short introduction lesson and teamwork via Moodle. The course was held in only one rehabilitation centre, so it would be interesting to see how it works in other business surroundings. Other rehabilitation centres have been interested of this kind of study and we believe that ICF will be spread to all rehabilitation providers.

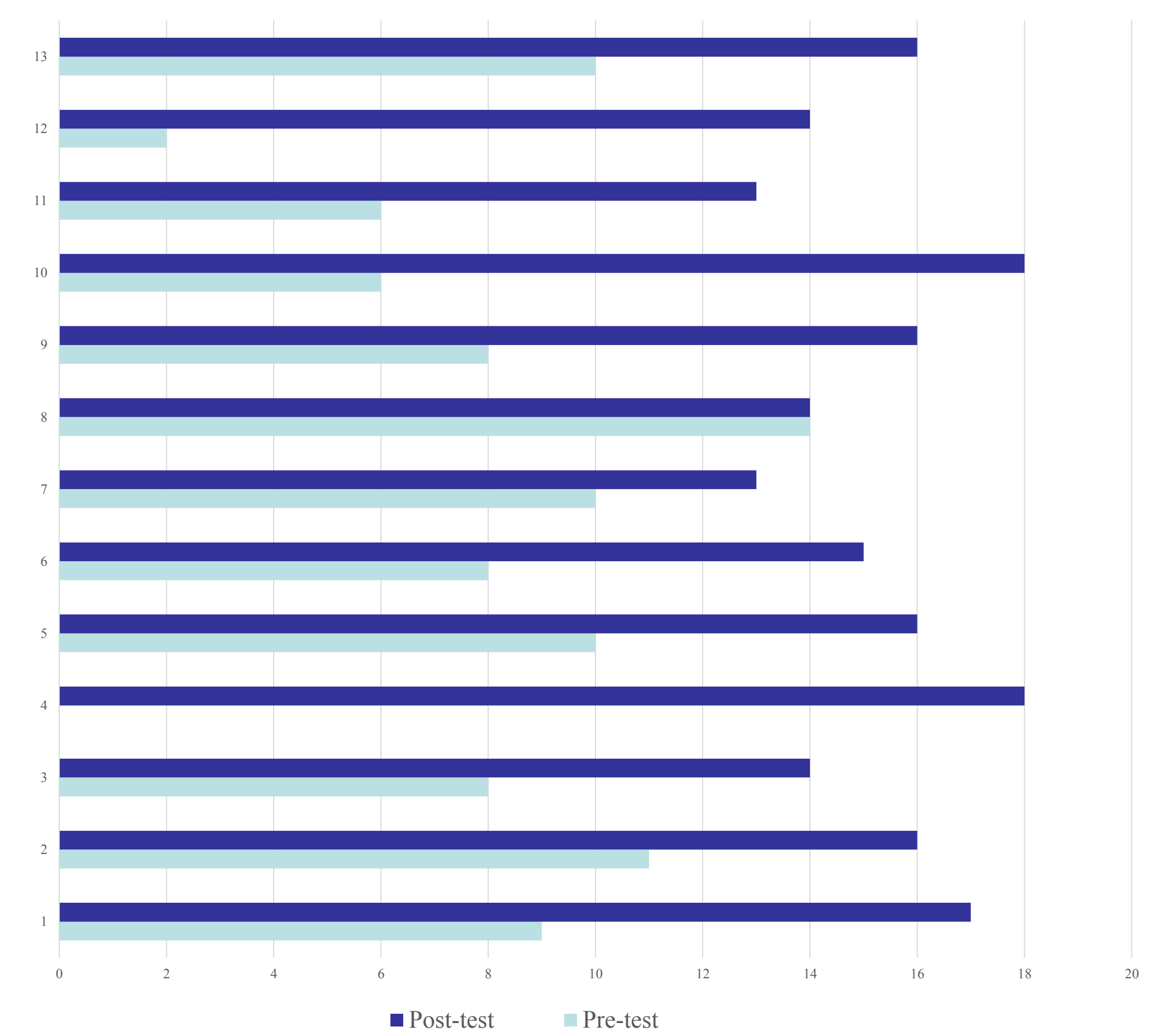


Figure 2: The right answers in pre- and post-tests.



Figure 3: The groups are adapting ICF to the future demands.

ICF Online training for Brazilian professionals

Author: Eduardo Santana de Araujo
CIF Brasil, BRAZIL

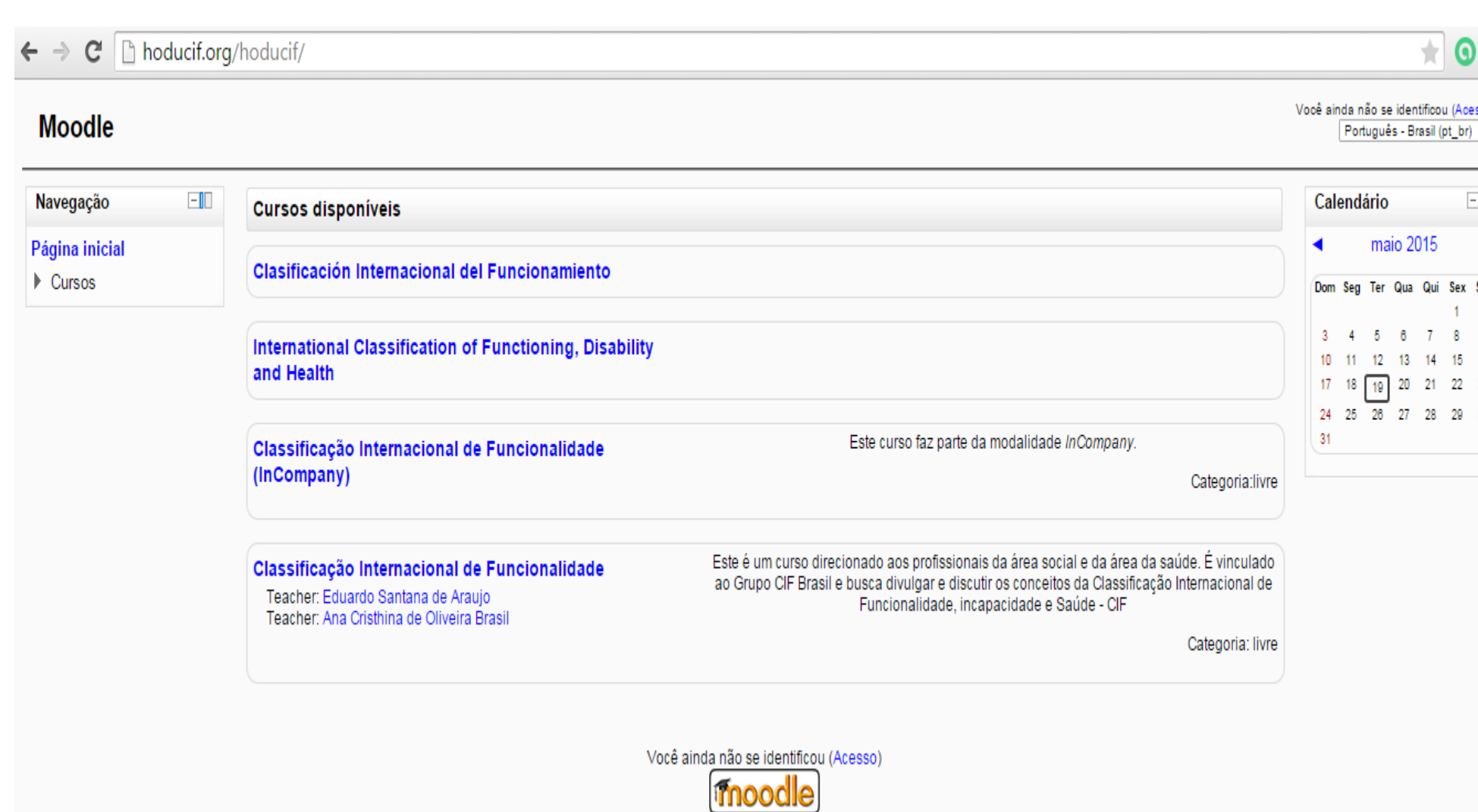
Abstract The online learning tool from *CIF Brasil* is available since 2013. After two years, professionals from different parts of the country could know the ICF and its applications. Students, health professionals and managers are the target audience for this course. It has four modules containing vídeos, texts, articles, exercises and forums for discussing.

Introduction

The publication of the International Classification of Functioning, Disability and Health (ICF) in 2001 had, as one of its main bases, the objective to control the situation of functioning and disability at populations, as a statistical tool. Such control may be able to drive health policy. However, to be possible, it is necessary that professionals be able to use ICF safely and assertively. The first step to be implemented, as the literature clearly indicates, is the insertion of the conceptual model of functioning and disability of WHO in professional practice, in political practice and academic practice. The multidimensional model does not deny the existence of a linear model, but the reverse is true. Currently, the training of health professionals institutions still teach the execution of the linear model for clinical practice and for determining the political and social guidelines. It is necessary, in principle, that the content of ICF be included in undergraduate and graduate.

But, by now, the professionals must learn about ICF after graduation. To facilitate the ICF dissemination, a online learning tool in Portuguese was created and it is available in the webpage <http://hoducif.org/hoducif>.

Figure 1 – ICF online course page



Methods

The course is available in a free internet model for online courses called *Moodle Platform*. We created four sections. Each one contains a video-class, an article and a guide text. The complementation is done with queries, exercises and forums for discussing.

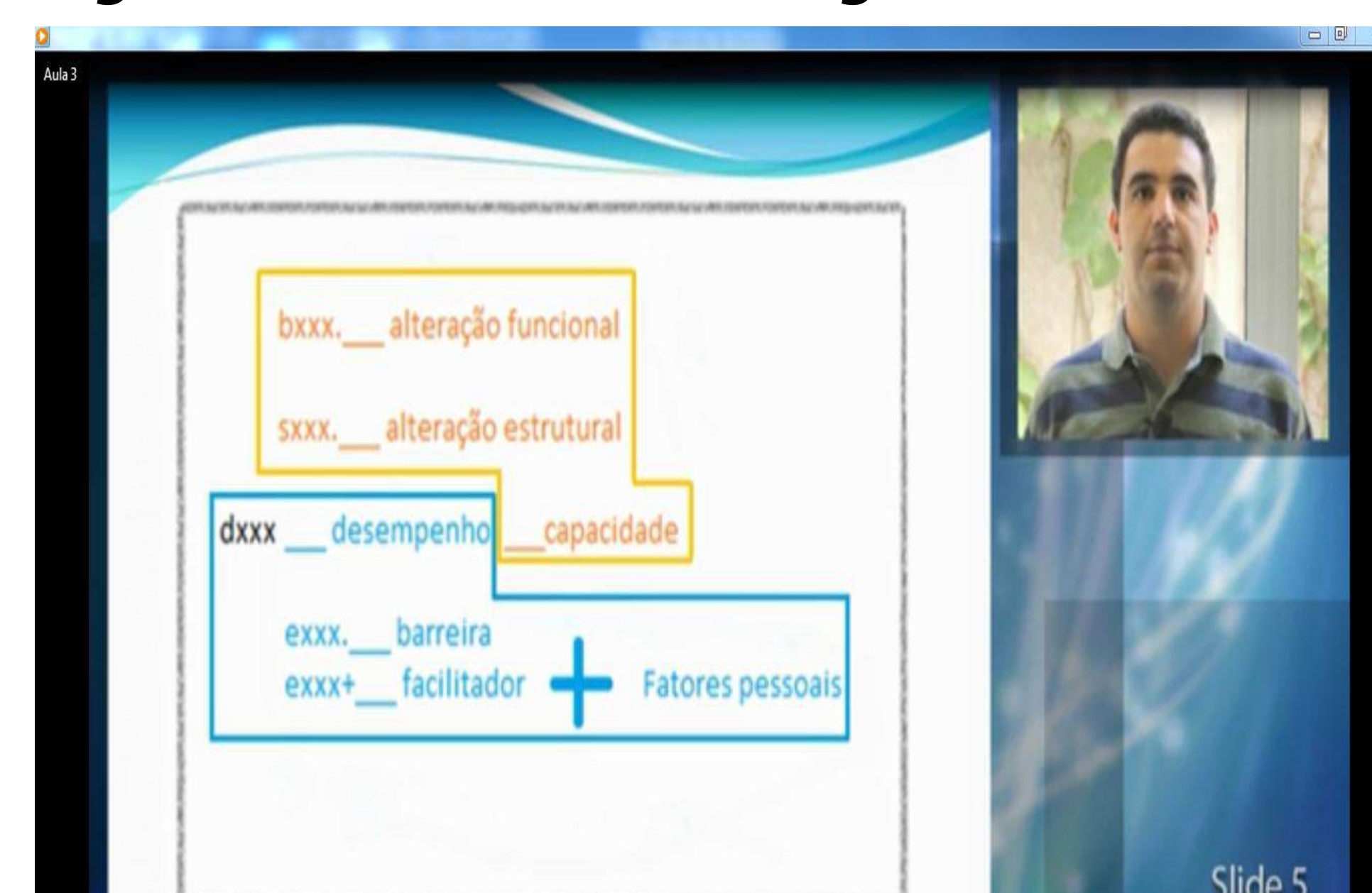
The students stay online during two weeks, about two hours by day and the professor share informations, questions and other forms of learning stimulations.

The Moodle Platform offers all the features that are necessities for learning and teaching in online courses. Our greatest care was the recording of lessons, made by a professional team for videos making.

Figure 2 – Video 1 image



Figure 2 – Video 3 image



The modules presents and discuss the ICF conceptual model, applications, structure, qualifiers, and examples of codes, codification, study cases and ways to implementation.

Results and Discussion

Demands for this course come from national institutes, professional associations and unions, hospitals or other health institutions, as well as universities. We started the method in 2013, after 5 years with the face-to-face. Until now, more than 5.000 students learned about ICF on CIF Brasil ways. The online course has been, at least, a great improvement to talk about public policies.

A comparison of the “functional health status” of the populations according to the presence of diseases and contextual factors may help us to determine actions about the environment so that we can improve the functionality and prevent disability.

The information system can collect data from different sources, not only in healthcare, but also through population surveys, through school forms or periodic examinations of workers. But the professionals must know about that and how they can help the information system for big data.

Conclusions

Besides the educational materials from WHO, other education and exercise tools were developed to facilitate integration of knowledge, one of these is the online courses.

Online courses can provide information about ICF using to people in different places at the same time. So it has been an important tool in Brazil, which has a very large geographical area.

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Educating Social Workers on ICF: From Classification into the Classroom and Professional Practise

Patricia Welch Saleeby, PhD, MSSA
Southern Illinois University Carbondale, USA

Abstract This poster describes the integration of the ICF in a graduate level social work course and the usefulness of the ICF in facilitating understanding of functioning, disability and health. Students were able to effectively use the ICF and the ICF Checklist to code various clinical cases, incorporate the information into the development of intervention and treatment plans for those clinical cases, and then determine outcomes based on changing functional status for their individual cases.

Introduction	Methods	Conclusions
As disability rates increase globally there is a greater need for social workers that are effectively trained and prepared to practice among individuals with disabilities. Social workers practice in various settings with other clinicians and on inter-disciplinary teams. The use of a common language and system would be beneficial for data sharing and collaboration. Also, social workers regularly conduct assessment, intervention, and evaluation in professional practice. The International Classification of Functioning, Disability and Health (ICF) provides a useful framework, terminology, and classification to facilitate enhanced training of social workers not only about disability, but also health, mental health, and overall functioning.	The ICF was incorporated into a two-semester graduate sequence Health and Mental Health Practice I and II led by the instructor, Professor Patricia Welch Saleeby, at the School of Social Work at Southern Illinois University Carbondale (USA). As part of the advanced practice curriculum, graduate social work students and practitioners completed an ICF based training that introduced them to the ICF and key elements of the framework and classification in the first and second semesters. In the second semester, students each developed their own clinical case and used it as the basis for completing clinical assignments. Each case was required to include information related to a primary and secondary health and mental health condition as well as information about the functioning in various major life areas. Information about the environment and personal factors were also required in the clinical cases. First, student participants used the ICF and ICF Checklist (Clinician Form for ICF) to code their own case study. Secondly, they completed A Comprehensive Service Plan (O’Hare,2007) – a multi-dimensional functional assessment – using their same clinical case. Subsequently, students were given a follow-up to the same clinical cases (“a second encounter”) that reflected changes in the functional status and environmental/personal factors for their respective case. Participants used this information to re-code their cases and indicate changes in any qualifiers including environmental barriers and facilitators.	Evaluation of the in-depth training demonstrated an enhanced understanding of concepts around disability and functioning. Students were able to understand the ICF framework which reflects a parallel to social work’s primary guiding frameworks – person in environment, social systems, and ecological approaches. Students were able to effectively use the ICF classification and codes (Body Structures and Functions, Activities and Participation, and the Environment) in their coding assignments with little difficulty. Qualifiers were slightly problematic to most students since these were considered too subjective. The environmental barriers and facilitators were easier to both understand and implement. However, the concepts of capacity and performance themselves were appealing to social work students because they practice in home, school, and other settings. Overall, evaluation of ICF training demonstrated the utility of the ICF for addressing treatment and intervention planning as well as determining functional outcomes. Using the ICF can contribute to improved understanding of health, mental health, disability and functioning among social work graduate students. It can also improve understanding of disability and functioning among social work students and practitioners, the ICF is likely to improve functional outcomes of individuals.
Usefulness of ICF in Social Work		Acknowledgements or Notes
With its inclusion of individual (body structures and functions) and environment factors along with the dynamic between the two aspects (activities and participation), the ICF aligns well with the commonly used social work person in environment approach. The ICF and its bio-psycho-social framework fits nicely with the social systems and ecological approaches used by social workers. The ICF classification, codes, and qualifiers provide an effective tool for social workers to develop appropriate interventions or treatment plans and to track changes in functional status of individual clients based on these interventions and treatments. The following educational example serves as a pilot-study for demonstrating the potential value of the ICF in clinical practice.		Dr. Saleeby is the Director of the ICF Interprofessional Practice Program at SIU Carbondale, USA. Its mission is to promote ICF awareness, application, and implementation in interprofessional practice. *O'Hare, T. (2007). <i>Essential skills of social work practice</i>. Chicago: Lyceum.

THE OF REHABILITATION -PRACTICAL TOOL IN ICF-BASED GOAL-SETTING

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Abstract The Spiral of Rehabilitation is a practical tool for health-care professionals to encourage client-centred assessment of functioning and increase their active participation in rehabilitation goal-setting process.

Introduction

The Spiral of Rehabilitation is a board game first developed by Finnish rehabilitation counsellor Kirsi Niittymäki in order to increase client-centeredness in rehabilitation goal-setting among psychiatric patients according to the ICF framework.

According to Niittymäki's experiences, the game encourages the collection of client-centred information from the participant's daily functioning along with facilitating the formulation of rehabilitation goals. The development project presented in this poster began to take shape based on Niittymäki's pioneering work.

The aims of the development project are:

1. To improve the original version of the board game in order to better meet the individual needs of young adults with mental health problems and adapt the game to make it suitable for young people with autism spectrum disorder.
2. To create an open access ICF-based practical tool for health care professionals to encourage client-centred assessment of functioning and rehabilitation goal-setting.

The target group of the project consists of young adults with mental health problems and adolescents with Asperger's syndrome.

Case presentation

The Spiral of Rehabilitation board game consists of a game board and 40 question cards based on ICF domains. The game is played in groups of 4-8. Each participant reads a question card aloud and then decides if the area is problematic to them or not. The answers are written down on an answer sheet. The game is played at the beginning of the rehabilitation process. The rehabilitation goals are formulated based on the answers given by the participant during the game.

Discussion

According to our preliminary experiences, the game increased active participation in the goal-setting process in both participant groups. The game facilitated the formulation of relevant everyday rehabilitation goals, providing concrete examples of functioning. The adult players in particular found the game to be an effective tool for self-evaluation. Playfulness can make it less distressing to discuss serious themes, thereby enhancing people's commitment to rehabilitation and engagement with the group.

During 2015 the game will be played on six rehabilitation courses. The rehabilitation groups in which the Spiral is played will be compared to control groups in which the goal-setting process is carried out traditionally. The board game will be further developed based on the experiences gathered from the rehabilitation courses. The final version of the board game will be made available on open access.

Acknowledgements

The development project is financed by The Social Insurance institution of Finland (Kela) and coordinated by the Rehabilitation Foundation. Other partners are the Lempäälä psychiatric outpatient clinic and the Foundation for the Rehabilitation of Children and Young People.



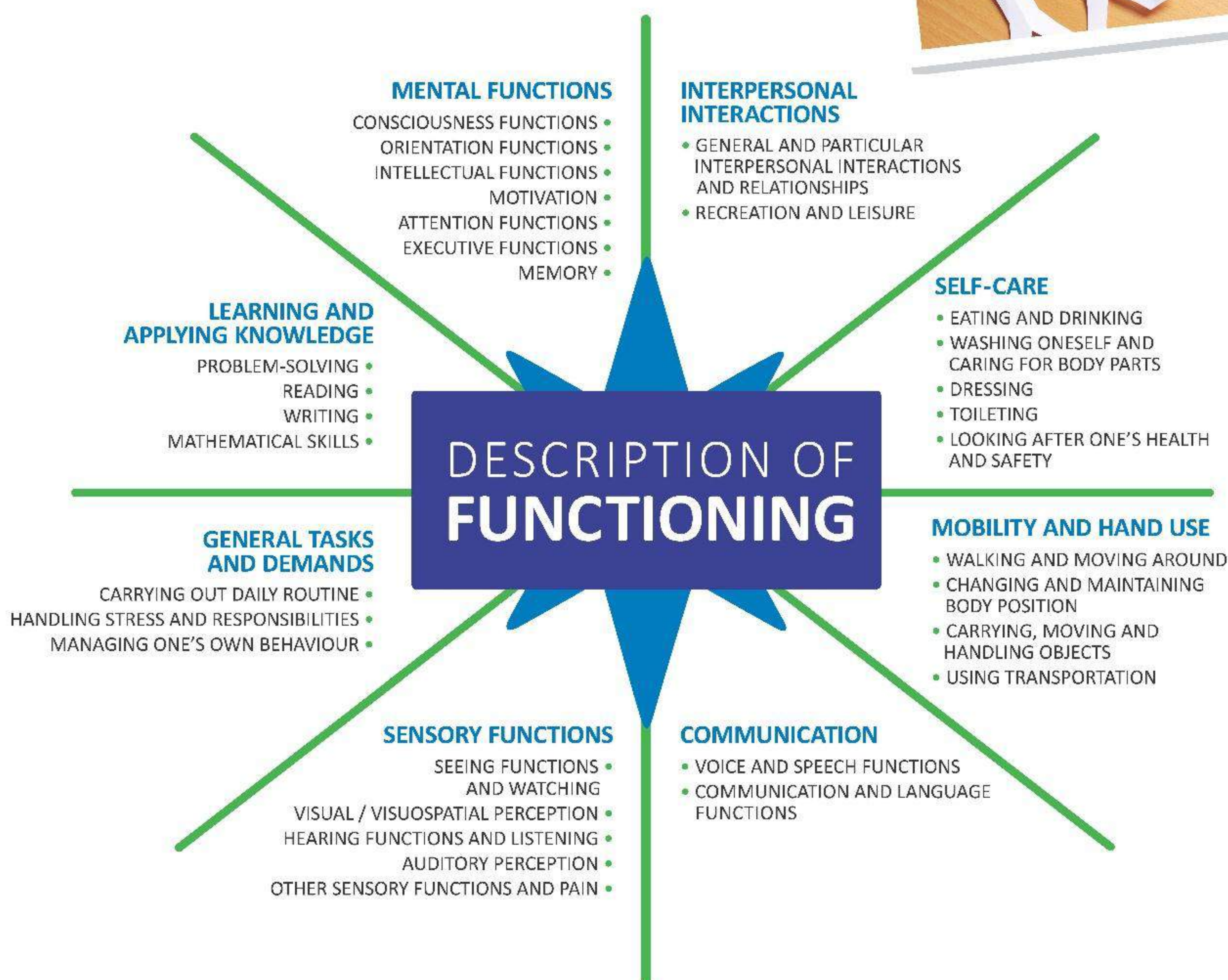


TRANSDISCIPLINARY ICF-CY BASED DESCRIPTION OF FUNCTIONING PROFILE OF STUDENTS WITH SPECIAL NEEDS

Mari Jokitalo-Trebs, Riitta Tiainen, Minna Rouste, Tuula Kiviranta, Leena Airaksinen

INTRODUCTION

Ruskis, state-owned special school in Helsinki is providing comprehensive education and rehabilitation for children and youth with severe or multiple disabilities ranging from age 6 to 18. The multi-professional team members have traditionally described the functioning and disability of the student by their own professional practice. ICF was considered to be a suitable tool for a shared approach to functioning and disability.



CASE PRESENTATION

- The new electronic document called "Description of Functioning" was developed during a year-long process run by a transdisciplinary team of professionals representing educational, therapeutic, medical and social fields.
- The ICF-CY based document describes students' ability to cope in everyday activities in their own environment and how this is affected by their disability.
- Description of Functioning has been in use as a part of each student's IEP (Individual Education Plan) and Rehabilitation Plan since August 2013. Average of 3 pages long report can be used also as such when parents apply for different disability and social services.

DISCUSSION

- ICF and its headings guide the team members to document the functioning of the student in a precise and structured way instead of narrative reporting. Headings facilitate the discovery of relevant information and standardized concepts improve mutual understanding in a transdisciplinary environment.
- Collaboration for creating a wide-ranging and comprehensive picture of the student's functioning works as an important basis for the ability to prioritize goals based on students possibilities.
- Transdisciplinary teams and caregivers have found the common language offered by ICF useful. ICF supports collaborative work both inside and outside school environment.



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MULTIDIMENSIONAL GUIDE BASED ON THE ICF FOR ASSESSING THE SUPPORT NEEDS OF PERSONS WITH DISABILITIES IN FRANCE

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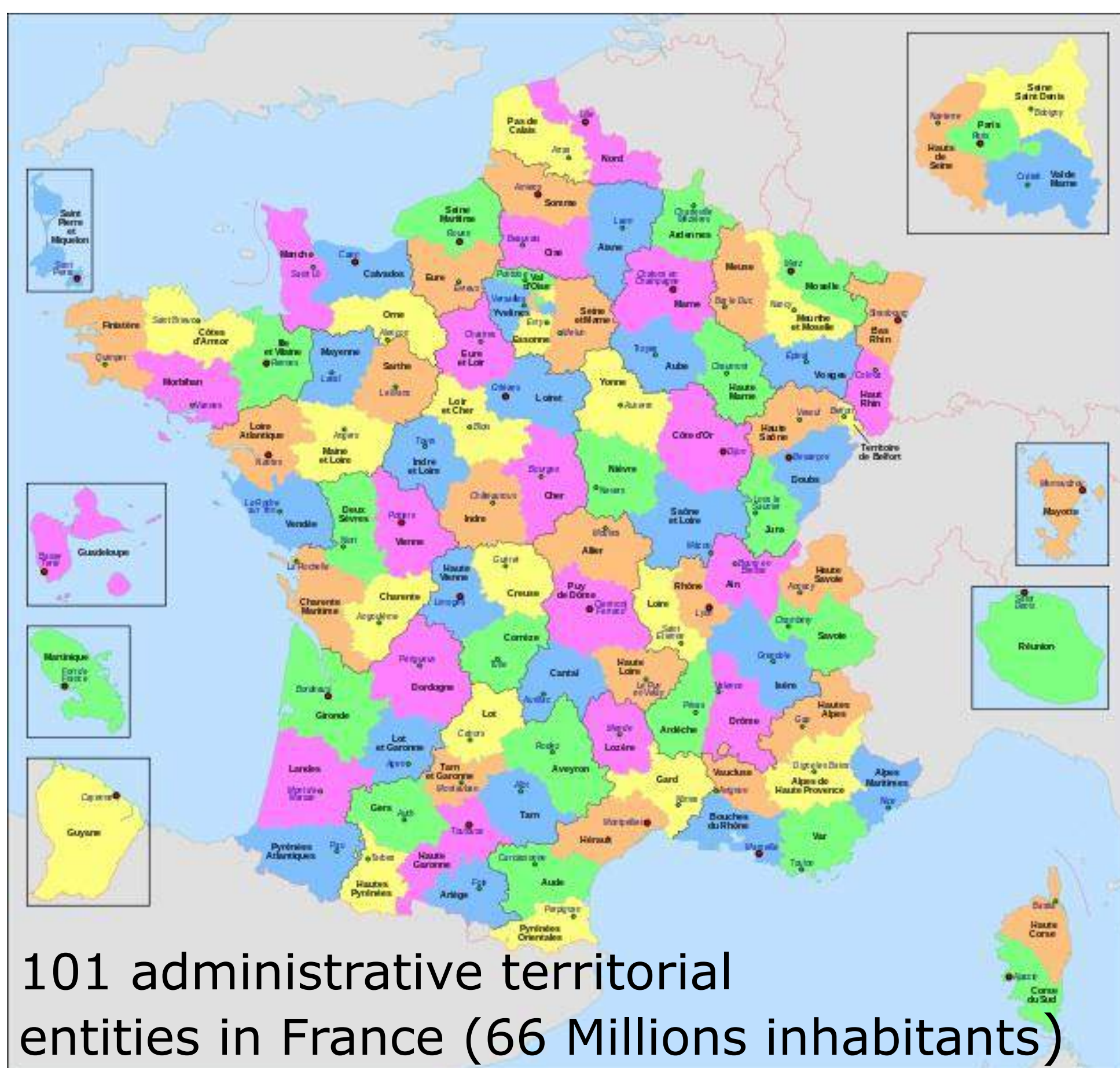
Abstract The 2005 Act "For equal rights and opportunities, participation and citizenship of persons with disabilities" is the legal frame of the French disability policy. It is based on two major principles: accessibility and disabled persons' support needs. In each of the 101 administrative territorial entities, a local authority is dedicated to carry out the disability policy. They are in charge of assessing disabled persons' situations and needs for support, and of providing them with disability benefits accordingly. In order to ensure a harmonized assessment throughout the country, they are provided with a multidimensional guide. The major part of the guide, intended to assess individual capacity, performance and environmental factors, is based on ICF A&P domains and categories.

Introduction

First, this poster presents the legal and structural framework of the French disability policy in force since 2005. It then describes how the ICF has been used to design **a multidimensional assessment guide** applied countrywide to assess the situation of persons with disabilities in order to draw up individualized support plans. In conclusion, the results of the application of this guide are discussed.

Case presentation

The legal frame of the French disability policy is the **2005-102 Act "For equal rights and opportunities, participation and citizenship of persons with disabilities"**, based on two major principles: accessibility and disabled persons' support needs. In each of the 101 French administrative territorial entities (departments), the authority competent to carry out the disability policy is the '**Departmental House for Disabled Persons**' (Maison Départementale des Personnes Handicapées).



101 administrative territorial entities in France (66 Millions inhabitants)

They are responsible for counselling persons with disabilities and families, informing them on their rights and processing applications for disability benefits.

Each of them is composed of two bodies:

- a **multidisciplinary team** (including medical doctors, occupational therapists, psychologists, social workers,...) in charge of assessing the difficulties the person faces and his/her needs;
- an executive board, the '**Commission for the rights and autonomy of persons with disabilities**', taking all decisions related to the provision of aids on the basis of the assessment. The network of local authorities is monitored by a national central authority (National fund of solidarity for autonomy – Caisse Nationale de Solidarité pour l'Autonomie, CNSA) in charge of the implementation of the disability policy throughout the country.

In order to promote a uniform application of the law and assessment of the needs of persons the central authority has provided the local assessment teams with a multidimensional assessment guide (called 'GEVA').

This guide entails 7 sections (touching upon the various components of a person's situation: social, financial, medical, etc.). The basic component related to '**activities and functional capacities**' is composed of **8 ICF A&P domains** and includes **142 ICF items** (see table).

Each item is linked to a series of 5 **environmental factors** (human environment, technical aids, animal aids, housing, services) assessed in terms of facilitator or obstacle/lack of). Thus each A&P item can be assessed (using the ICF 5 grades generic scale) in terms of **Capacity** and **Performance**.

An **additional qualifier of performance** (activity performed alone; performed partially with human assistance; performed with continued assistance; not performed) allows to assess what performance would require in terms of environmental facilitators and support.

ICF A&P Domains in GEVA

General tasks and demands and interpersonal interactions and relationships (18 items)
Mobility and handling objects (23 items)
Self-care (12 items)
Communication (14 items)
Domestic and daily life (16 items)
Applying knowledge and learning (5 items)
Tasks and demands related to schooling and initial training (22 items)
Tasks and demands related to work (32 items)

Initially delivered in paper version, the electronic version of this guide is currently under progress.

Discussion

This assessment guide is meant to serve several purposes:

1. To better meet disabled **persons' needs** to live a more independent life.
2. To steer a **common methodology**:
 - by stimulating **collaboration** within assessment teams gathering different, sometimes competitive but yet complementary skills and expertise;
 - by promoting a **common approach to assessment** among the 101 multidisciplinary teams based on a common language.
3. To feed the disability **information system**: by serving as a basis for disability qualitative and quantitative data collection countrywide (complementary to national disability surveys).
4. To **monitor disability policy and expenses schemes**: by providing data on entitlements to disability benefits.

Notes

Additional documentation available on the website of the CNSA
http://www.cnsa.fr/article.php3?id_article=31
http://www.cnsa.fr/rubrique.php3?id_rubrique=131

Experiences and prospects for an ICF-based assessment method

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Introduction

Kumppaniksi Association

Kumppaniksi, an association owned by the municipalities of the Kajaani area, offers rehabilitation opportunities for the unemployed, those under the threat of becoming unemployed, those needing rehabilitation due to reasons of mental health, and other people who need the work-related areas in their functioning status assessed.

Vocational rehabilitation requires a proper assessment method

Before developing our method, we lost rehabilitation time because we did not know which problems were primary and kept customers from being rehabilitated for work. We needed a method to make the issue visible. We therefore had two needs: Effective use of rehabilitation time Focusing of rehabilitation on the factor that is the most significant for the rehabilitee at that moment

Requirements for the method

- The method must be so easy to use so that it actually gets used among other everyday duties.
- The method must support self-assessments.
- The factors assessed must be adaptable to the rehabilitee and the environment.
- The method must portray the rehabilitee's functioning capability clearly.
- The produced information must be easily transferred and made available for all collaborating parties.

Methods & Materials

Method

The method is based on questions that are linked to the respective ICF qualifiers. The use of concrete questions relating to issues that are easily observable in the environment and allow easy self-assessment makes possible both self-assessments and assessments by outsiders.

These questions are compiled into groups (meters) that can be combined and edited as required for a particular rehabilitee and his or her personal path.

We use the acronym **VAT** for our method.

Working environment

It was clear from the very beginning of our development work that the usability and possibilities of the method would be better if we implemented it in a workstation-server environment. This facilitates both data collection and data processing as well as the compilation of statistics. Functioning status data can be collected in different working environments such as the workplace, home, various rehabilitation sites, etc. This allows the creation of functioning status profiles with good coverage. Information technology allows us to compare functioning status assessments conducted at different times, thereby allowing us to evidence individual-level effectiveness of rehabilitation.

Statistical analyses per e.g. customer group are easy, which allows us to evidence group-level effectiveness.

Assessment and description of functioning status

An assessment begins with the rehabilitee's self-assessment. Next, observations by external observers are added as needed.

The reasons why assessments need to include both self-assessment and external observations and why VAT in some cases uses several questions to cover one ICF qualifier, are the following:

Self-assessments inform us of customers' own views of their functioning. According to our experience, subjective information is not always completely reliable due to the rehabilitating person's situation, experiences, wants and wishes. Therefore, we need external observations. External observations complement information from self-assessments. They take place in the same (given) environment as the respective self-assessments, conducted by professionals or other people who know the requirements of the environment. Observations may be recorded by one or more external person(s), and they may concern different situations.

This gives a more precise picture of the studied factor; in our experience, e.g. motivation should be described with several questions because we all have different motivations for different things.

Results

- A single assessment session produces a cross-section of the rehabilitee's current situation and functioning capability. This information is used in feedback discussions and by multi-disciplinary cooperation groups in their decision-making.
- The comparison of the results of different assessments shows us the changes in the rehabilitee's functioning capability. This helps the rehabilitee visualise the changes that have taken place during the rehabilitation period. It is particularly motivating because the rehabilitee gives personnel feedback to himself or herself concerning the change.

Conclusions

- ICF, supported by VAT, is a good method for assessing, compiling and transferring information.
- This method produces information for our organisation's own use to steer rehabilitation activities while it enables cooperation among professionals in rehabilitation.
- The method enables the comparison of assessments made at different times so that the changes are easy to see.
- Differences between self-assessments are also made visible, which gives customers feedback of their development.
- The graphical output makes it possible to observe the interdependencies among the various dimensions of a customer's functioning status.

Acknowledgements or Notes

ICF is a good method for consolidating functioning status data and transferring it among the parties involved, but it requires a means of collecting the data. When data collection is easy, people use the method, and we get the information we need in our work.

Benefits of ICF-based functioning status assessments in ambulatory vocational rehabilitation of psychiatric rehabilitees

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Introduction

At Kumppaniksi, we have used ICF-based functioning status assessments since 2006 to support e.g. the vocational rehabilitation of psychiatric rehabilitees. We conduct psychiatric rehabilitation in cooperation with Kainuu Central Hospital rehabilitation unit and psychiatric outpatient clinic and the Social Insurance Institution of Finland.

Methods & Materials

At Kumppaniksi, we have used ICF-based functioning status assessments since 2006 to support e.g. the vocational rehabilitation of psychiatric rehabilitees. We conduct psychiatric rehabilitation in cooperation with Kainuu Central Hospital rehabilitation unit and psychiatric outpatient clinic and the Social Insurance Institution of Finland.

Case presentation

Rehabilitees come to Kumppaniksi mainly after they have first had a medical rehabilitation period with these health care services. Vocational rehabilitation begins with a relatively short examination period (e.g. 3 months); the functioning status of the rehabilitee is assessed at the beginning and at the end of this period.

The objectives of these assessments comprise the following:

- Describe the rehabilitee's functioning status so that the drafting of a realistic rehabilitation plan is made possible,
- Find and describe the strengths of the rehabilitee's functioning status to build the rehabilitation path on them,
- Find and describe the primary impairments in the rehabilitee's functioning status that, at that point of time, require attention in the planning and conducting of rehabilitation activities, and
- Ensure the rehabilitee's motivation and commitment to rehabilitation.

Results

Rehabilitation is facilitated because it takes place in phases, the rehabilitee's functioning status is assessed often enough, and the rehabilitation plan is updated respectively. When issues that at various points of time prohibit rehabilitation are made visible through assessments, rehabilitees can focus their personal resources appropriately.

At the beginning of rehabilitation

At the beginning of rehabilitation, rehabilitees may feel reticent about functioning status assessments. This was evidenced customer interviews conducted at Kumppaniksi for a thesis. However, rehabilitees' attitudes toward assessments change essentially during rehabilitation periods and particularly after the feedback discussions that form a part of assessments. This is seen in the following statements by rehabilitees:

"I did not at first understand why this (assessment) is done but then I realised what it means from my own perspective. I started to think, what does this really mean for me."

Understanding rehabilitees' own problems

Functioning status assessments and descriptions, compatible with the ICF data structure, make it possible to bring up, in a clear manner, factors that influence the functioning status but cannot be observed at the rehabilitation site. Once such factors are brought up, the effects of these possible impairments on rehabilitation can be estimated. That helps rehabilitees understand that rehabilitation involves more than the activities that take place at the workshop (place of rehabilitation).

"This was a different sort of survey because they asked about many things that I had not thought to be connected to work, like the questions about sleep."

Motivation

The effectiveness and the fluent progress of rehabilitation are essentially influenced by the rehabilitee's motivation. The rehabilitee's motivation is improved by the fact that in an ICF-compatible functioning status assessment, it is possible to bring up strengths.

"I can then learn to see my own strengths myself. I don't notice them otherwise. It was really nice to notice that I have so many things actually rather good."

Changing goals

Impairments may surface during rehabilitation and prevent the attainment of the original goal and the fulfilment of the original plan. ICF-compatible assessments support bringing up such issues and structuring new rehabilitation paths and new goals. Concrete functioning status descriptions have proved very important in these situations. They help rehabilitees see their situations comprehensively and consider new solutions.

"They told me in that meeting that I was not suitable for that field. I don't have the nerve for it. I can get stuff done but it's not a field that would be suitable for me. I had a vague idea of that but it was brought up in that feedback discussion. That field just simply is not right for me. It's been necessary to understand these things."

These quotations show situations that assessments and the related feedback discussions have brought up. They also highlight the fact that rehabilitation paths are not linear continuums that always progress according to plans made at the beginning, but rather they include sidetracks that should be observed and their influence on rehabilitation should be taken into account. The fact must be accepted that an impairment, invisible at the beginning of rehabilitation, might change the objective of rehabilitation. When such changes take place, it is important that the rehabilitee accepts the impairment and its effects on his or her plans for the future. The concrete nature of the graphs obtained through VAT assessments helps in this.

Conclusions

Assessments and the associated feedback discussions allow the rehabilitee's own voice to be heard during the rehabilitation process. Feedback discussions help rehabilitees to see the importance of assessments and to understand their own functioning status better, appreciating their strengths and understanding possible limitations.

EATING DISORDER PATIENT’S FUNCTIONING FACTORS ENHANCING PARTICIPATION IN LIFE SITUATIONS. APPLICATION OF ICF CLASSIFICATION

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Abstract Introduction: This study was conducted in the inpatient unit of the private Center for Eating Disorders in Helsinki, Finland. The purpose was to describe the functioning factors during the middle and end phases of the center’s inpatient treatment which enhance the eating disorder patient’s participation in life situations. The description was made using ICF classification extended with a subjective dimension. **Methods:** The study was conducted by using action research methods. The research questions were examined in a focus-group interview and in a development group discussion. **Results:** An eating disorder patient’s physical and mental wellbeing must be developed in balance. It is important that the patient learns new skills required in everyday life. The eating disorder must be replaced by participation in normal life situations. The support provided by family members and health care personnel, respectful attitude towards the patient and timely, professional services are essential. Positive development of subjective experiences concerning the individual’s value, meaning of life and basic attitudes to life should be detected already during the inpatient treatment. **Conclusions:** From a societal perspective, it is important that the patient is not out of reach of services during any stage of rehabilitation. Additional research is required in order to determine to what extent participation in life situations and functioning are taken into account in common services for eating disorder patients.

Introduction

Eating disorders (anorexia nervosa and bulimia nervosa) involve severe disruption of mental, physical and social functioning and limited participation in life situations. Rehabilitation of eating disorder patients has traditionally been seen as psychotherapy, and different dimensions of the rehabilitation have not been taken into account. The purpose of this study was to describe, using ICF classification, the functioning factors enhancing the patient’s participation in life situations in the middle and end phases of inpatient treatment at the Center for Eating Disorders.

Methods & Materials

The study was implemented as action research at the rehabilitation and treatment unit of the Center for Eating Disorders in accordance with table 1.

Research question	Collecting material	Analysing material
What enhances participation in life situations	A qualitative focus group interview with two former clients	Theory-based content analysis (extended ICF classification as theory)
What are the functioning factors a.) enhancing b.) restricting participation in life situations	Online conversation between a development group composed of three former clients, two of their family members, and three employees	Theory-based content analysis (extended ICF classification as theory)

Table 1. Research process

As a synthesis between both materials, an appropriate description of the functioning factors was created.

Results

Functioning factors have been described in table 2. using the extended ICF classification.

Functioning factors

Body functions and structures:

- Overall improvement in physical wellbeing and physical and mental state are in balance
- Mental functions enable strengthening of functioning

Activities and participation:

- Eating disorder is replaced with participation in normal life
- The patient learns new skills and transfers them outside the inpatient unit
- Eating and food dosage starts to go smoothly
- Interaction as well as maintaining and forming healthy relationships
- Becoming independent

Environmental factors:

- Advancing functioning with exercises
- Instructions for social security and future challenges
- Support from family members
- Support from personnel and networks
- Respecting the patient’s individuality, developed sense of responsibility and decision-making power
- The in-patient unit’s rules reinforce health and functioning; they are flexible and formed together
- Professional, diverse and timely services

Subjective experiences:

- The attempt to understand the background factors of the eating disorder
- The wish to expand life outside the department, within the limitations posed by health
- A safe attachment to the caretaker
- A positive change process for subjective experiences initiated

Table 2. Functioning factors

Functioning factors must be examined in relation with the severity of the eating disorder in the middle and end phases of inpatient treatment. Factors related to personal factors must also be noted. The most significant viewpoints related to personal factors in the study were female gender, significance of age (youth or adult) and life events preceding treatment.

Conclusions

The Center for Eating Disorders would benefit from examining the current state of rehabilitation. The sufficiency of support in terms of participation in relationships and becoming a member of society should be evaluated. Critical evaluation of the patient’s status in the different phases of rehabilitation is also needed.

The factors in Body functions and structures components may be viewpoints that can easily be approached by medical and nursing science. Subjective experiences, on the other hand, form typical content of psychotherapy. The viewpoints of Activities and participation might be an interesting expansion to rehabilitation content in connection with eating disorders.

In terms of effective and productive rehabilitation of an eating disorder patient, it is important that the patient is not out of reach of services at any phase of the rehabilitation. Societal examination is needed, especially in terms of the basis for granting Kela’s (Finnish social insurance institution’s) rehabilitation psychotherapy.

Acknowledgements or Notes

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**Using International Classification of Functioning to capture
effect of breathing exercise with SmartBreathe in community
dwelling elderly**

Dharma Foundation of India

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Abstract There is a need to highlight the medical problems that are being faced by the elderly people in India, and explore the strategies for bringing about an improvement in their community life. This research was designed to see the effect of an assistive technology ,Smart Breathe on mobility status and community life of elderly in New Delhi, India. Evaluation based on the International Classification of Functioning provides an appropriate theoretical base where the effect of a assistive technology like SmartBreathe can be captured in terms of changes in functions. We concluded that the Smart Breathe device helped elders to improve sensations associated with cardiovascular and respiratory functions, mobility and community life.

Introduction

1.SmartBreathe: Respiratory exercises boosting the oxygenation of cells is one of the most effective ways to normalize health parameters, enhance abilities, stabilize psyche and fight off stress as well as psycho-emotional distress. The Smart Breathe is used as a training simulator for respiratory muscles to form proper respiratory stereotype, enhance physical endurance, increase adaptation potential of the body, improve resistance to adverse environmental, weather and industrial factors.

2.The International Classification of Functioning, Disability and Health (ICF): The ICF, provides a standard language and framework for the description of health and health-related states. This model can be used to underpin case planning, monitoring of progress, and outcomes evaluation.

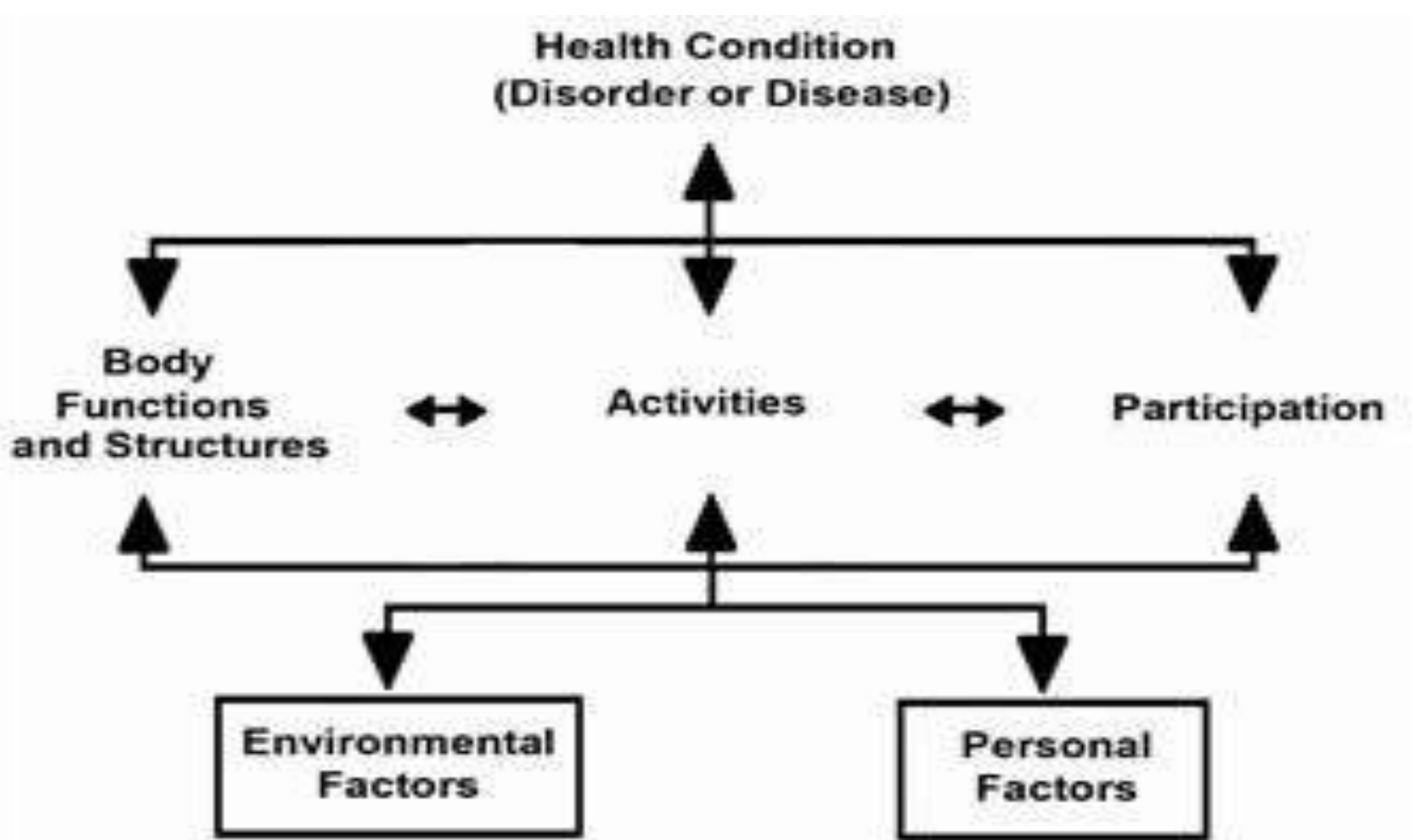


Fig 1: International Classification of Functioning Model

Methods & Materials

Six physical therapists were trained on protocol of breathing exercises with the breathing device. Demographic profiles of elderly were documented on the ICF Checklist Version 1A .Elderly were trained to use Smart Breathe in groups. Subjects performed group based breathing exercises and home exercise program with Smart Breathe. The duration of exercises was gradually increased as per the protocol starting from day 2 to week 8. Components of Geriatric ICF core set (Fig. 2) were assessed initially and at the end of week 8. There were 5 components of body functions and 3 components of activities and participation.

Item code	Description
b440	Respiration functions
b445	Respiratory muscle functions
b450	Additional respiratory functions
b455	Exercise tolerance functions
b460	Sensations associated with cardiovascular and respiratory functions
d455	Moving around
d460	Moving around in different locations
d910	Community life

Fig 2: Item codes selected from ICF Geriatric Core Set



Fig 3: Smart Breathe device

Results

The study illustrates significant improvement in sensations associated with cardiovascular and respiratory functions, mobility status, and community life of elderly.

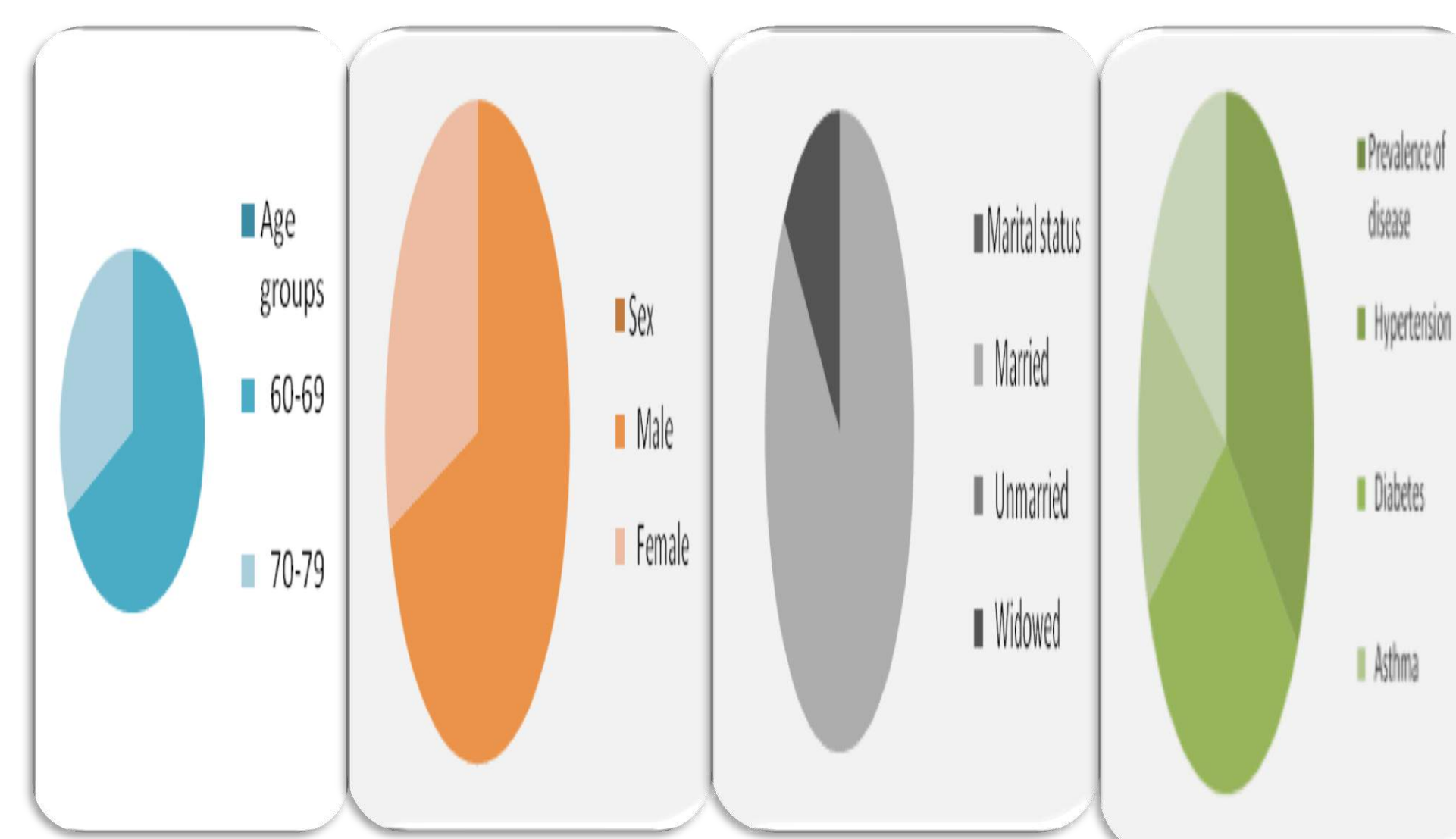


Fig 4: Demographic profile

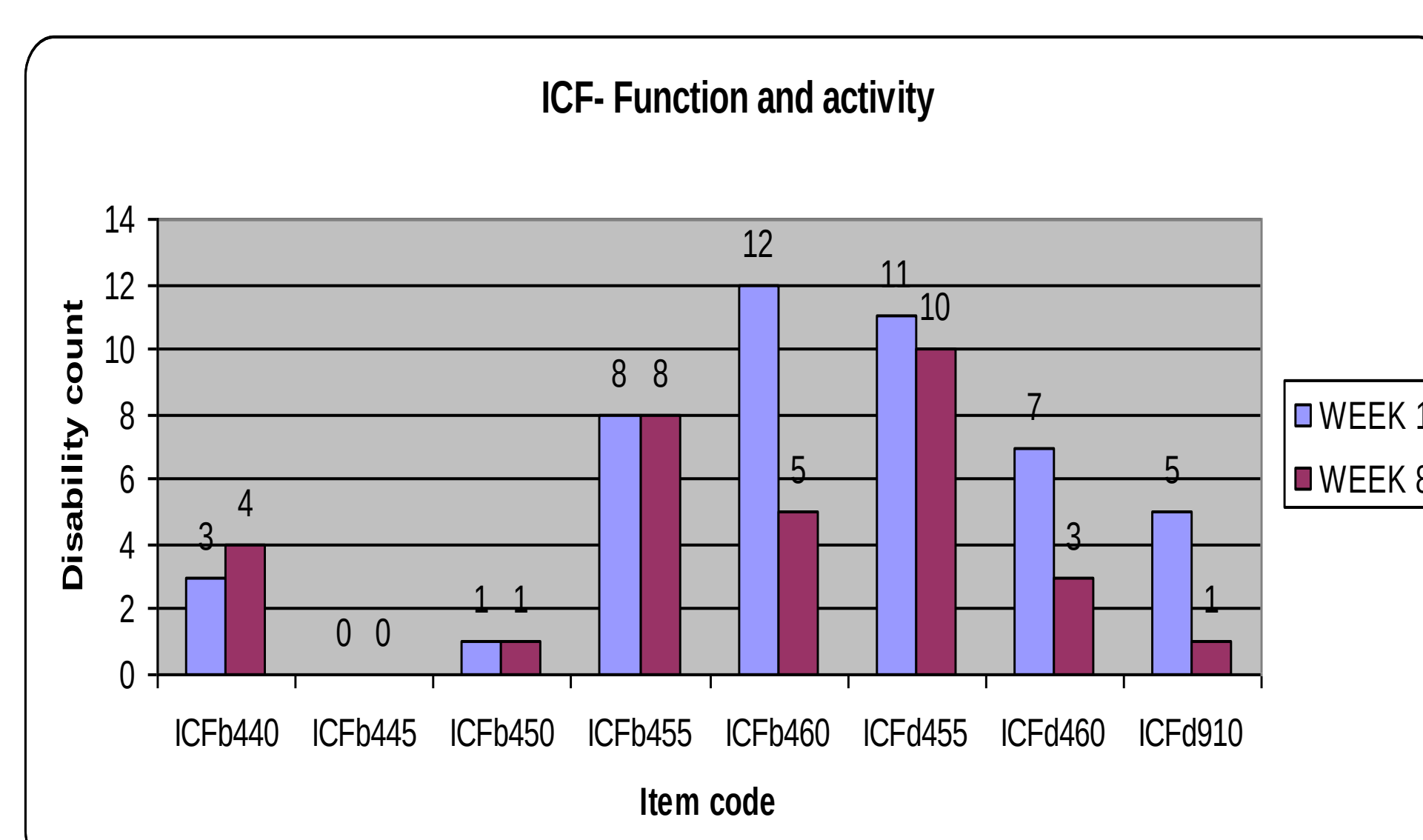


Fig 5: Disability count in number of elderly in body function and activity participation

Conclusions

In our study, we have devised a respiratory muscle-strengthening program using the Smart Breathe. The device reinforced expiratory muscle strength training by incorporating a pressure threshold valve. This respiratory muscle training helped in reduction in dyspnoea and improvement in cardio-vascular and respiratory function.The respiratory device which assisted in respiratory functions is classified within the ICF as Products & Technology under the contextual component .Effect of device used by elderly in the group based therapy was captured as changes in functional outcomes due to improvement in respiratory and cardiac functions. Improvement in feeling of dyspnoea during various indoor and outdoor activities, improved walking ability in different locations and different kind of surfaces and community life such as social gathering, visit to markets and temples etc. Social group gathering with the same purpose of doing exercises together along with a home exercise program helped in healthy ageing. ICF provides an appropriate theoretical base for the Assistive technology (AT) context and is useful for demonstrating the impact of assistive technology like Smart Breathe in respiratory functions and community life in elderly. The ICF framework has the potential of facilitating the development of device-specific causal models. It also may contribute to developing a research agenda for technology outcomes like this study on SmartBreathe by highlighting measures that need to be developed.



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Conflicts of Interest: None disclosed.

Acknowledgements or Notes

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ICF - an Assessment Tool for Rehabilitation Counseling Process

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Introduction

- ❑ Rehabilitation counseling is a process with rehabilitee oriented approach and multidisciplinary teamwork (Figure1). The goal is to support the rehabilitee in the multidimensional Health and Social Service System and to guide the rehabilitee to find solutions to his future plans.
- ❑ The process starts with the assessment of the rehabilitee's functioning and service needs. For this purpose rehabilitation counselors developed an ICF Based Assessment Form for stroke rehabilitees.
- ❑ The form was compared to the ICF Core Sets available and modified to cover additional neurological rehabilitee groups. Lately it has been used also with rehabilitees with other health conditions. The form is structured by the content. The complicated terms in the ICF were operationalized to common used terms.
- ❑ The form works as a checklist to standardize the assessments done by the rehabilitation counselors.
- ❑ The assessment is done by interviewing the rehabilitee in his home environment. The approach is rehabilitee oriented and depends on the special characteristics of the rehabilitee's diagnosis and ability to communicate.

Case presentation

- Figure 2 presents the content of the assessment form. The selection of the categories is based on the criteria of the Finnish Health and Social Services and Benefits.
- ❑ Preselection of the Body Functions (b) and Structures (s) was not done. Instead the symptoms described by the rehabilitee are linked to the Body Functions (b) and Structures (s) by the interviewer.
 - ❑ The Personal Factors (pf) included have an impact to the Individual Rehabilitation and Service planning.
 - ❑ Variable level categories of the Environmental Factors (e1-e5) and The Activities and Participation (d1-d9) were chosen to get sufficient information to justify the service needs and to plan the interventions.
 - ❑ Numeric qualifiers are not used. The present state of the Environmental Factors (e1-e5) is documented. Qualitative qualifiers were developed to describe the performance of the Activities and Participation (d1-d9).
 - ❑ In conclusion the rehabilitee's self assessment is summarized with the observations by the interviewer and the available evaluations done by therapists.

Discussion

- ❑ The subjective experience by the rehabilitee is an essential part both in the rehabilitation counseling process (Figure 1) and individual rehabilitation and service planning. It also helps the rehabilitee to become aware of his strengths and skills. This will enable him to make personal choices for his future plans.
- ❑ Based on our clinical experience the ICF Based Assessment Form for Rehabilitation Counselors adapted to the Finnish Health and Social Service System is an applicable tool to describe the level of functioning and service needs of rehabilitees with various health conditions. It provides detailed and comprehensive information about rehabilitees' subjective needs for guidance, support and service planning for rehabilitation counselors as well as for other multidisciplinary teams in the health and social services.

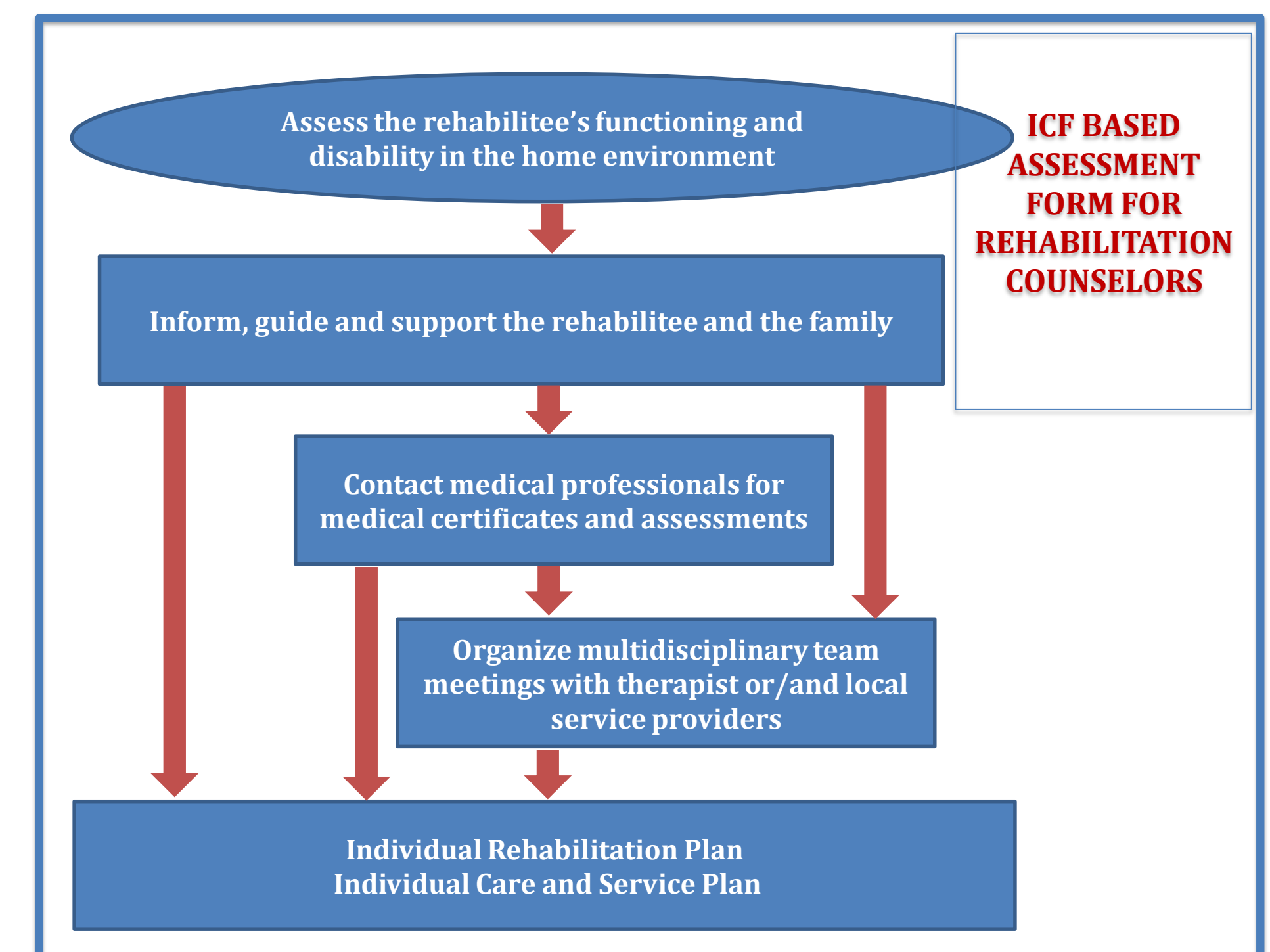


Figure 1. Rehabilitation counseling process

ICF BASED ASSESSMENT FORM FOR REHABILITATION COUNSELORS

Assessment of the rehabilitee's functioning and disability in home environment

HEALTH CONDITION (ICD-10)

SYMPTOMS DESCRIBED BY THE REHABILITEE

PERSONAL FACTORS (pf)

- ❑ Age, sex
- ❑ Family relationships
- ❑ Occupation, work, education, studies
- ❑ Past life events and current events
- ❑ Lifestyle, habits, overall behavior pattern
- ❑ Strengths and assets

GOALS DESCRIBED BY THE REHABILITEE

ENVIRONMENTAL FACTORS (e1-e5)

- ❑ Categories of each chapter correlating to the Finnish Rehabilitation and Social Service System

ACTIVITIES AND PARTICIPATION (d1-d9)

The qualitative qualifiers of the performance

1. Independent performance with or without assistive device and taking quality factors into account (time, stressfulness, difficulty, adapted ways of action)
2. Performance assisted by another person

CONCLUSIONS AND PLANS

- ❑ Activity limitations, Participation restrictions, Environmental barriers
- ❑ Plans for interventions

Figure 2. The content of the assessment form

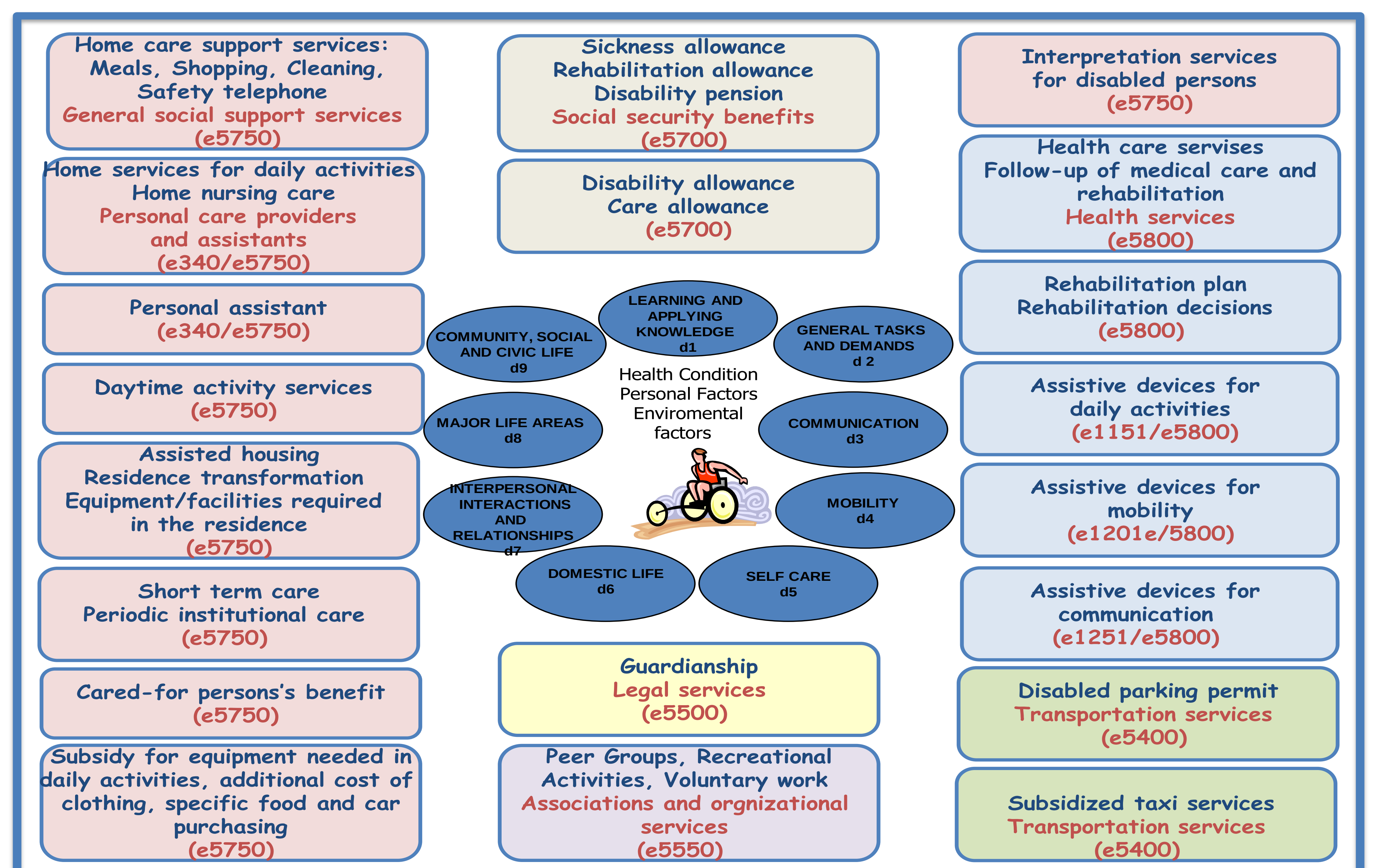


Figure 3. The services (d5) adapted to the Finnish Health and Social Service System

Participation as the Objective: An ICF-based Questionnaire after Traumatic Brain Injury (TBI) and Rehabilitation Interventions

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Introduction

A multidisciplinary team at the Brain Injury Outpatient Clinic of Tampere University Hospital has developed a structured self assessment questionnaire of functioning after TBI (TBI-questionnaire). The questionnaire consists of:

1. Identification
2. Information concerning the accident, injury and other illnesses
3. Rehabilitation interventions
4. Functioning and disability (open questions and scales based on the brief core set for TBI)
5. Personal factors (education, work experience, social security and livelihood)
6. Looking after ones' health
7. Subjective aims and dreams concerning participation

TBI-questionnaire covers 100% of the brief ICF core set for TBI

Interventions

1. Neuropsychological psychoeducation individually or in a group (5 sessions)
2. Rehabilitation counseling (co-operation with other organizations and follow-up)
3. Social work (social insurance and other services)
4. Multidisciplinary education for patients and their nearest
5. Multidisciplinary group rehabilitation (5 sessions)

Discussion

- Participation as the objective of the rehabilitation process requires a client-centered approach in planning and focusing the interventions after TBI
- Environmental factors as well as the individual functioning and disability are recommended to be considered in the rehabilitation process

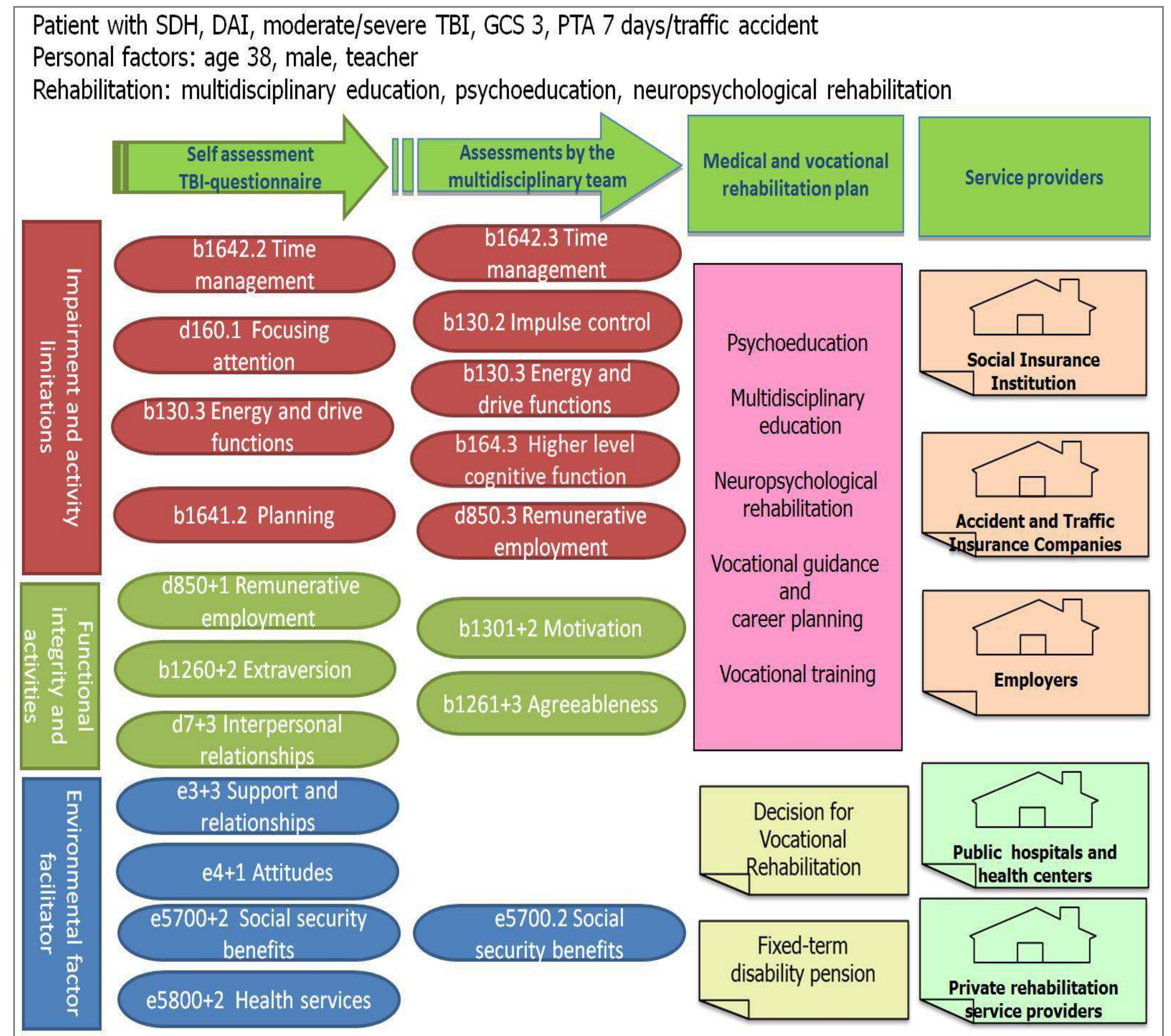


Figure 1. Rehabilitation plan based on ICF-framework

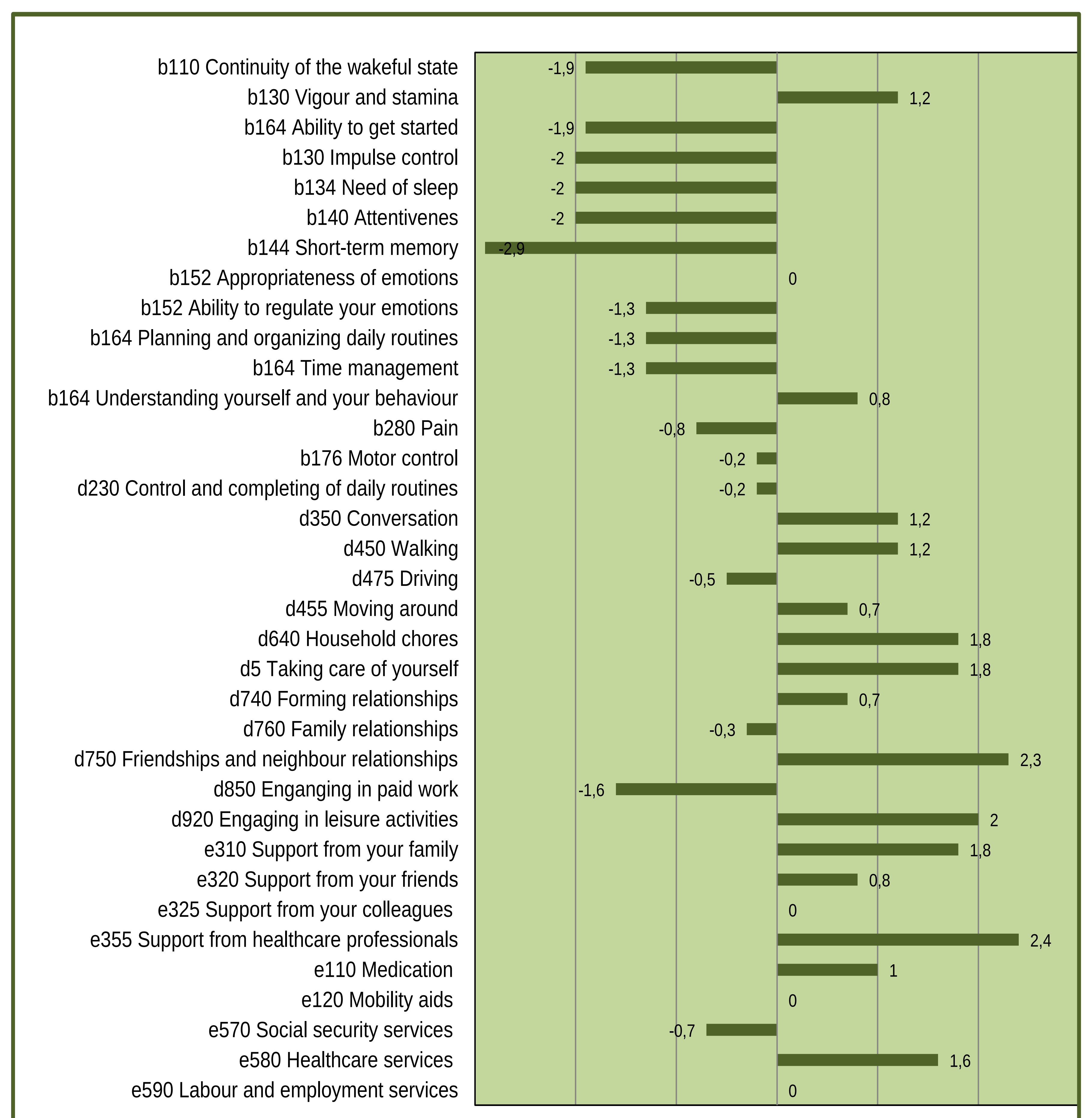


Figure 2. Functioning and disability based on self assessment (scale from -4 to +4)