



STUDY OF INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH BY THE STUDENTS OF «PHYSICAL THERAPY, ERGOTHERAPY» SPECIALTY

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Abstract

Aim is to highlight the experience of studying the International classification of functioning, disability and health (ICF) by the students of «physical therapy, ergotherapy» specialty.

Methods. Literary sources from electronic data bases of V.I Vernadskyi National Library of Ukraine, and Russian scientific electronic library «eLibrary» devoted to introduction of ICF in Ukraine and other post-Soviet countries. The official documents on ICF implementation in Ukraine. Methodological approaches to teaching clinical and rehabilitation subjects at higher education institutions.

Results. ICF is a universal instrument for many experts in rehabilitation for common objective assessment of patient's state, efficiency control of rehabilitation impacts accomplished, making and comparing the results at different stages of rehabilitation. It provides the basis for mutual understanding between different participants of rehabilitation process. ICF must be fully applied by physical therapists and ergotherapists. It requires teaching at the universities preparing physical therapists and ergotherapists the subject of ICF studying and implementation while rendering services of physical therapy and ergotherapy. The experience gained indicates the relevance of teaching such subject after studying by students the basis of clinical medicine, clinical psychology, and social assistance. Giving clinical examples is of a great importance in teaching this subject, as well as differentiating and description of functional symptoms, structural failures by students in the ICF domains, activities and participation of patients from the given examples. Completing by students self-studying tasks is of a crucial significance in teaching this subject allowing them to fully learn the material and acquire professional skills.

Conclusions. It is relevant to teach the subject of ICF implementation while rendering services of physical therapy and ergotherapy during preparation of «physical therapy, ergotherapy» specialty in higher education institutions. This subject is recommended to be introduced to training process after students have learnt the basis of clinical medicine, clinical psychology, and social assistance.

Keywords: student, physical therapy, ergotherapy, learning, International Classification of Functioning, Disability and Health, ICF.

Introduction

According to the description of World confederation of physical therapy, physical therapy is services given by physical therapists to private people and population in general aimed to develop, preserve, and restore maximal motor and functional capacities of a person throughout life. Physical

therapy includes interaction between a physical therapist and other specialists in the sphere of healthcare in the course of examination / assessment of potential capacities of motor functions, and coordination of aims of further professional interference using unique knowledge and skills of physical therapists [16].



It is apparent from the above that physical therapist working as a full member of multidisciplinary rehabilitation brigade has to have and operate the instrument of objective assessment of the patient's state, efficiency control of physical impacts accomplished, summarizing intermediate and final results of physical therapy. Such instrument for all specialists in rehabilitation is International Classification of Functioning, Disability and Health – ICF.

ICF belong to a “family” of international classifications developed by World Health Organization (WHO) to be applied to different health aspects. It was approved by the 54th session of World Health Assembly for international application on May, 22, 2001, (WHA54.21 resolution) and became the basis for description and measurement of health and disability [5]. Beginning from this year it began to be applied in various clinical conditions at national and international levels.

ICF has a universal significance. It covers all aspects of human condition, some components of well-being, and describes them in terminology of healthcare domains, and domains connected with it. Along with other international classifications of WHO, ICF provides common rules for coding a wide spectrum of information connected with health, and uses standardized publicly available language allowing it to communicate on the topics indicated in research all over the world at different subjects and spheres of science [3, 11, 12].

At the territories of post-Soviet countries ICF was first being introduced in Russia. In 2003, this classification was presented in brief Russian version [13]. In the Russian Federation ICF has received different kind of support not only among specialists in physical and rehabilitation medicine, but among clinicians, healthcare organizers, etc. It began to be applied for efficiency assessment of medical rehabilitation of the sick under Russian system of healthcare [2, 10, 17].

In Ukraine it was only the year 2016 when the Ministry of Healthcare officially initiated the process of ICF implementation in rehabilitation [4]. According to the Order of the Cabinet of Ministers of Ukraine from December, 27, 2017, № 1008, the Plan of events to implement the International Classification of Functioning, Disability and Health, as well as the International Classification of Functioning, Disability and Health among children

and teenagers was approved [14]. Complying with this order, the Ministry of Health of Ukraine approved the ICF translation with their order [15]. It contributed to conducting workshops on ICF questions from WHO in 2019, spreading the knowledge about ICF and opportunities to use it among Ukrainian medical community.

All the mentioned activities concerning the ICF implementation in Ukraine relate mostly to medical workers. In our state, the ICF application in the sphere of physical therapy has not fully started yet. Not to stay aside from this process, the prominent universities of Ukraine preparing specialists in physical therapy began to teach the subject highlighting the questions of ICF application in physical therapy and ergotherapy.

Research objective is to highlight the first experience of studying the ICF by the students of «physical therapy, ergotherapy» specialty.

Methods

The materials used in research were literary sources selected from electronic data bases of V.I Vernadskyi National Library of Ukraine, and Russian scientific electronic library «eLibrary» devoted to introduction of ICF in Ukraine and other post-Soviet countries. The official documents on ICF implementation in Ukraine were analyzed. Methodological approaches to teaching clinical and rehabilitation subjects at higher education institutions were considered.

Results and discussion

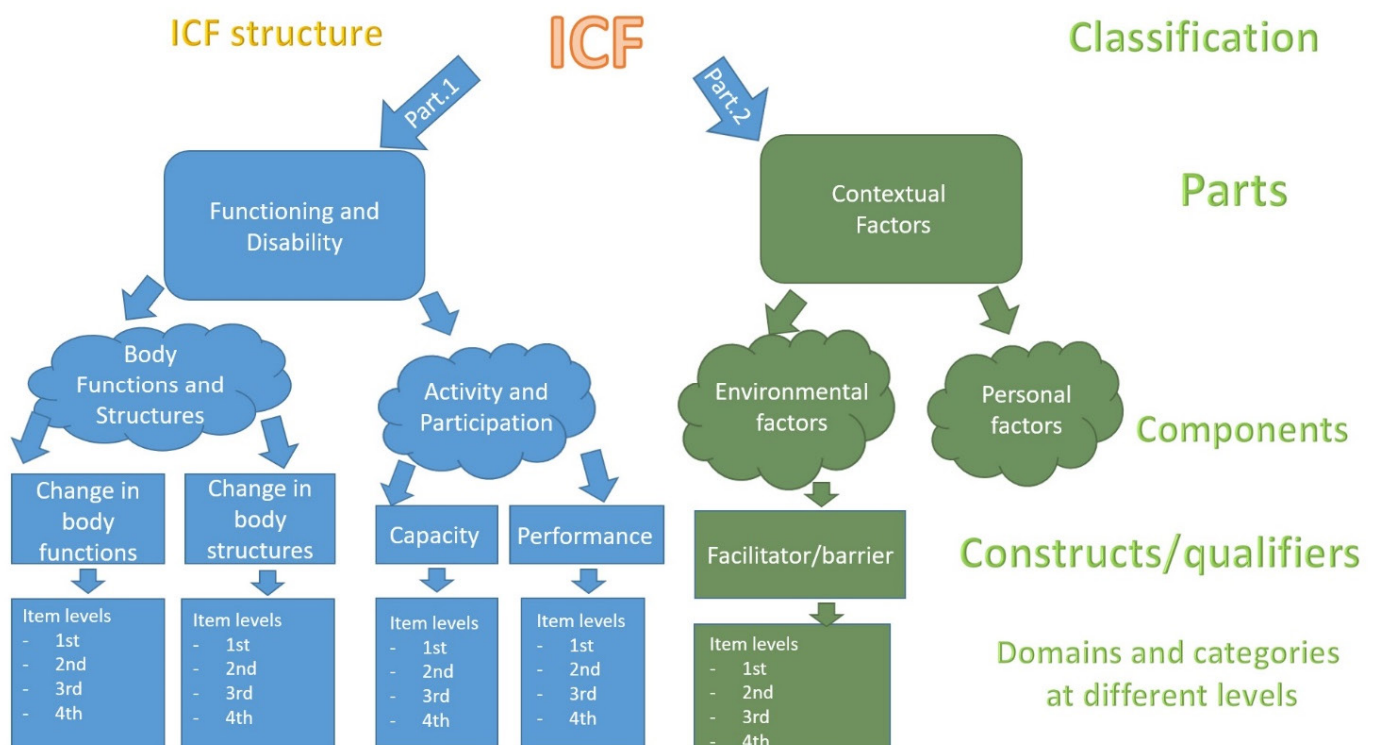
Since the year 2018, at the chair of physical rehabilitation and biokinesiology of the Faculty of health, physical education and sports of Borys Grinchenko Kyiv University the subject «Models of rendering rehabilitation services (based on International Classification of Functioning)» has been taught.

The objective of the subject is to provide theoretical and practical knowledge, develop vocational competencies in applying ICF in physical therapy and ergotherapy. The overall total of credits is 4 (120 hours), number of modules – 4, class hours – 56, final modular control – 8, self-study hours – 56, form of term control – pass-fail exam. The subject is taught in the 2nd year of studies, term 4.

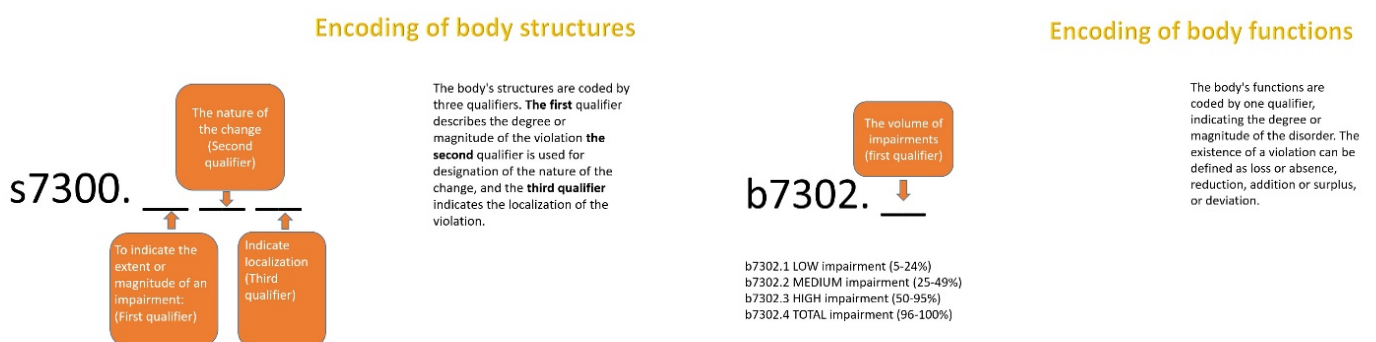
In the course of teaching this subject, the students were given general characteristic of ICF as its objectives, review of its components, models of functioning and disability, and spheres of usage. Then the qualification levels, detailed classification with determining the organism functions, body structure, activities and participation, and environmental factors were given. At the lessons, there were being worked out terminological issues, ICF coding rules, the main domain sets and ICF forms, ethical instructions of using ICF, etc. Crucial

significance in studying this subject had review of clinical examples of applying ICF where students were mastering practical skills.

Self-studying the tasks was an obligatory component of learning. The main tasks for self-study were description of classification levels, peculiarities of component coding, and ICF core sets and forms. As an example of such work it is possible to give the ICF structure scheme, and peculiarities of body structure and body functions coding scheme made by students (pic. 1, pic. 2).



Pic. 1. The ICF structure scheme



Pic. 2. Peculiarities of body structure and body functions coding in ICF



A large part of self-study was given to learning the ICF core sets. This was because future specialists in physical rehabilitation are not obligatory to know all the domains offered in classification to successfully operate ICF, which is impossible in fact, but only the list of those domains necessary for professional work independently or within the multidisciplinary rehabilitation brigade. For this, WHO and ICF Research branch (www.icf-research-branch.org) have created the process of developing the core sets of ICF categories or «ICF core sets» [9].

ICF core sets facilitate the description of functioning, for example, in clinical practice, by providing the lists of the main categories related to specific health states and contexts of healthcare. These ICF categories have been selected out of the whole ICF after scientific process based on preparatory research and involving a multidisciplinary expert group. To facilitate the usage of ICF core sets, in 2012, a tutorial was published having an integrated approach to their usage in clinical practice including added instrument of electronic documentation ICF Based Documentation Form [1].

Completing this task the students have created the tables containing domain descriptions belonging to the corresponding core set in three languages. For this, ICF versions in different languages had been used [5, 6, 7, 8]. In the tables 1 and 2, there are given the contents of two core sets needed further for assessment of the patients' states during completing clinical practice session in rehabilitation institutions. Then, based on these tables students have individually developed Ukrainian versions of documentation forms based on ICF core sets (pic. 3).

The gained experience of teaching the subject «Models of rendering rehabilitation services (based on International Classification of Functioning)» on the 2nd year demonstrates some difficulties related to lack of students' knowledge in clinical medicine,

psychology, and social assistance. In some cases, it was difficult for the students to guide through ICF terminologies, they lacked clinical understanding of pathological states and diseases, knowledge of diagnostic methods of disabilities and body structure dysfunctions, etc. That is why, further it is planned to teach this subject in the 3rd year in the term 5. This is also because ICF can serve as scientific work instrument, which is more relevant to be discussed with the senior students having such work as obligatory.

Conclusions

ICF is a universal instrument for many experts in rehabilitation for common objective assessment of patient's state, efficiency control of rehabilitation impacts accomplished, making and comparing the results at different stages of rehabilitation. It provides the basis for mutual understanding between different participants of rehabilitation process. ICF must be fully applied by physical therapists and ergotherapists. It requires teaching at the universities preparing physical therapists and ergotherapists the subject of ICF studying and implementation while rendering services of physical therapy and ergotherapy. The experience gained indicates the relevance of teaching such subject after studying by students the basis of clinical medicine, clinical psychology, and social assistance. Giving clinical examples is of a great importance in teaching this subject, as well as differentiating and description of functional symptoms, structural failures by students in the ICF domains, activities and participation of patients from the given examples. Completing by students self-studying tasks is of a crucial significance in teaching this subject allowing them to fully learn the material and acquire professional skills.

Conflict of interests

The authors claim no conflict of interests.

Table 1

Brief ICF Core Set for Vocational Rehabilitation
 Taken from <https://www.icf-research-branch.org> website

Seq. №	Domain code	English name for domain	Russian name for domain	Ukrainian name for domain
1	b130	Energy and drive functions	Волевые и побудительные функции	Вольові і спонукальні функції
2	b164	Higher-level cognitive functions	Познавательные функции высокого уровня	Пізнавальні функції високого рівня
3	b455	Exercise tolerance functions	Функции толерантности к физической нагрузке	Функції толерантності до фізичного навантаження
4	d155	Acquiring skills	Приобретение практических навыков	Набуття практичних навичок
5	d240	Handling stress and other psychological demands	Преодоление стресса и других психологических нагрузок	Подолання стресу та інших психологічних навантажень
6	d720	Complex interpersonal interactions	Сложные межличностные взаимодействия	Складні міжособистісні взаємодії
7	d845	Acquiring, keeping and terminating a job	Получение работы, выполнение и прекращение трудовых отношений	Отримання роботи, виконання та припинення трудових відносин
8	d850	Remunerative employment	Оплачиваемая работа	Оплачувана робота
9	d855	Non-remunerative employment	Неоплачиваемая работа	Безоплатна робота
10	e310	Immediate family	Семья и ближайшие родственники	Сім'я і найближчі родичі
11	e330	People in positions of authority	Лица, обладающие властью и авторитетом	Особи, що мають владу і авторитет
12	e580	Health services, systems and policies	Службы, административные системы и политика здравоохранения	Служби, адміністративні системи і політика охорони здоров'я
13	e590	Labour and employment services, systems and policies	Службы, административные системы и политика труда и занятости	Служби, адміністративні системи і політика праці та зайнятості



Table 2

Brief ICF core set for Stroke
Взято із сайту (<https://www.icf-research-branch.org>)

Seq. №	Domain code	English name for domain	Russian name for domain	Ukrainian name for domain
1	b110	Consciousness functions	Функции сознания	Функції свідомості
2	b114	Orientation functions	Функции ориентированности	Функції орієнтованості
3	b140	Attention functions	Функции внимания	Функції уваги
4	b144	Memory functions	Функции памяти	Функції пам'яті
5	b167	Mental functions of language	Умственные функции речи	Розумові функції мови
6	b730	Muscle power functions	Функции мышечной силы	Функції м'язової сили
8	s110	Structure of brain	Структура головного мозга	Структура головного мозку
9	s730	Structure of upper extremity	Структура верхней конечности	Структура верхньої кінцівки
10	d310	Communicating with - receiving - spoken messages	Восприятие устных сообщений при общении	Сприйняття усних повідомлень при спілкуванні
11	d330	Speaking	Речь	Говоріння
12	d450	Walking	Ходьба	Ходьба
13	d510	Washing oneself	Мытье	Миття себе
14	d530	Toileting	Физиологические отправления	Гігієнічні заходи при фізіологічній потребі
15	d540	Dressing	Одевание	Одягання
16	d550	Eating	Прием пищи	Харчування
17	e310	Immediate family	Семья и ближайшие родственники	Сім'я і найближчі родичі
18	e355	Health professionals	Профессиональные медицинские работники	Професійні медичні працівники
19	e580	Health services, systems and policies	Службы, административные системы и политика здравоохранения	Служби, адміністративні системи і політика охорони здоров'я

**Форма документації на основі МКФ
Реабілітаційний набір**

Інформація про пацієнта										
ПІБ: _____					Стать: <u>чол</u> / <u>жін</u>					
Дата народження: ____ . ____ . ____ р. Вік: ____ років.										
Функції організму										
Фізіологічні функції систем організму										
<i>Скільки порушень має людина...</i>										
		Відсутність порушень	Слабкі порушення	Помірні порушення	Тяжкі порушення	Абсолютні порушення	Не визначено	Не застосовується		
		0	1	2	3	4	8	9		
b130	Вольові і спонукальні функції									
	Джерела інформації:									
	Історія хвороби			Результати, отримані шляхом опитування пацієнта			Клінічне обстеження		Технічне дослідження	
	Опис проблеми:									
		0	1	2	3	4	8	9		
b134	Функції сну									
	Джерела інформації:									
	Історія хвороби			Результати, отримані шляхом опитування пацієнта			Клінічне обстеження		Технічне дослідження	
	Опис проблеми:									
		0	1	2	3	4	8	9		

**Форма документації на основі МКФ
для обструктивних захворювань легень**

Інформація про пацієнта										
ПІБ: _____					Стать: <u>чол</u> / <u>жін</u>					
Дата народження: ____ . ____ . ____ р. Вік: ____ років.										
Структури організму										
Анатомічні частини тіла, такі як органи, кінцівки та їх компоненти.										
<i>Скільки порушень має людина...</i>										
		Відсутність порушень	Слабкі порушення	Помірні порушення	Тяжкі порушення	Абсолютні порушення	Не визначено	Не застосовується		
		0	1	2	3	4	8	9		
s410	Структура серцево-судинної системи				Обсяг					
					0	1	2	3	4	
					5	6	7	8	9	
	Джерела інформації:									
	Історія хвороби			Результати, отримані шляхом опитування пацієнта			Клінічне обстеження		Технічне дослідження	
	Опис проблеми:									
		0	1	2	3	4	8	9		
s430	Структура дихальної системи				Обсяг					
					0	1	2	3	4	
					5	6	7	8	9	
	Джерела інформації:									
	Історія хвороби			Результати, отримані шляхом опитування пацієнта			Клінічне обстеження		Технічне дослідження	
	Опис проблеми:									
		0	1	2	3	4	8	9		

Pic. 3. Fragments of documentation forms based on ICF



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