

The international classification of functioning, disability and health (ICF) and rehabilitation: what has been done?

Abstract

Background: rehabilitation has as its emphasis, not only the disease and your treatment, as well as improved Functioning. The International Classification of Functioning, Disability, and Health (ICF) is a classification system endorsed by the World Health Organization (WHO) since 2001. ICF brings a new paradigm by changing the focus on the consequences of the disease to highlight Functioning as a dynamic interaction between the biomedical and social model.

Purpose: to conduct a brief description of ICF use in scientific movement of the ICF use in Rehabilitation. Methodology: The databases used were Medline, Scielo, Bireme, PEDro, and Scopus. The outcomes examined were ICF use and protocol, study design and expertise area.

Results: 121 articles were included in this mapping. There was a predominance of ICF use in Neurology (n=52) and the most study design used was cross-sectional (n=55). Most of the studies used ICF to develop, validate or analyze functional assessments (n=52).

Conclusion: the results indicate heterogeneity in the ICF diffusion in rehabilitation. The increase of ICF knowledge as a guiding model in Rehabilitation seems to be consolidating, however, intervention and longitudinal design studies still underrepresented. The ICF should be incorporated as a considerable framework to structure functional outcomes.

Keywords: international classification of functioning, disability, health, review literature as topic, rehabilitation, evidence-based practice

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Maria Beatriz Dutra,¹ Fernanda Guimarães,¹
Anke Bergmann,² Luciana Castaneda¹

¹Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro (IFRJ), Rio de Janeiro, Rio de Janeiro, Brasil

²Programa de Epidemiologia Molecular do Instituto Nacional de Câncer, Rio de Janeiro, Rio de Janeiro, Brasil

Correspondence: Luciana Castaneda, Endereço Rua Professor Carlos Wenceslau, Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro (IFRJ), Rio de Janeiro, Rio de Janeiro, Brasil, 343 - Realengo, Rio de Janeiro - RJ, 21715-000, Tel 55 21 3293-6000, Email lucianacastaneda@yahoo.com.br

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Introduction

The World Health Organization Family of International Classifications (WHO-FIC) is a suite of classification products that may be used in an integrated fashion to compare health information internationally. The classifications endorsed by WHO-FIC facilitate the storage, retrieval, analysis, and interpretation of data and their comparison within populations over time and between people at the same point in time as well as the compilation of internationally consistent data.¹ Since 2001, WHO, recommends the International Classification of Functioning, Disability, and Health (ICF).² Although their objectives were different from the International Classification of Diseases (ICD) your use of the supplementary form is recommended.³ ICF is based on a biopsychosocial model and aims to provide a common language for the description of the phenomena related to health states. Functioning as a significant ICF component is a multidimensional and dynamic phenomenon, which describes not only to the disease but also, with body and function structures, participation, activities and the relationship with contextual factors (environmental and personal). Disability - according to WHO - is as a phenomenon that relates to body functions and structures, activities and limitation, and participation restriction on environmental and personal factors.⁴

The organize ICF structure is into six components: Body Functions (b), Body Structures (s), Activities and Participation (d), Environmental Factors (e) and Personal Factors. Can be considered as a global standard in Health Care.⁵ Despite the dissemination

and recognition of the ICF relevance in the improvement of health indicators, practical issues such as ICF implementation researches routinely in health services and their ability to revert to improvements in the quality of healthcare are not fully elucidated.⁶⁻⁸ Recent evidence indicates that the ICF academic activity has been intense since its publication and there is a growing emphasis on the increase of biopsycosocial model.⁹⁻¹¹ However, there seems to be a gap between ICF's popularity as an ideal tool to guide rehabilitation services and their practical implementation.¹² Trying to understand why this gap still found and the great scientific debate, this study aims to map the ICF publications in the rehabilitation of the year 2012 to 2016. This time cut seeks to update the panorama of the activity on a previous systematic review.¹⁰

Methods

The present study is an update of the systematic review done by Castaneda et al.,¹⁰ The databases used were: Medline, Scielo, Bireme, PEDro, and Scopus. Articles included published between January 2012 and December 2016. The descriptors used were: "International Classification of Functioning" or "ICF" in the title and "Rehabilitation" in the abstract and title, in Portuguese, English, and Spanish. The inclusion criteria were: studies mentioned ICF or International Classification of Functioning, Disability, and Health in the title and the term rehabilitation in the title and summary. The exclusion criteria were: 1) abstracts of presentations, dissertations or academic theses, besides articles not related to the rehabilitation context; 2) systematic

review studies; 3) studies in which the ICF was only mentioned; 4) books or book chapters; 5) case studies and; 6) publications involved in the area of pediatric rehabilitation. The structured review was in three stages (Figure 1). In the first stage, we identified studies in the databases selected to compose the report; in the second stage, the selected studies were by reading the title and summary according to the inclusion and exclusion criteria. Two independent reviewers did this step. In case of disagreement, consulted with a third appraiser was realized. In the third step, two reviewers read the full article and extracted the following information: ICF study design, study field, and ICF specific application categorized in three subgroups: ICF-based instruments, ICF- linking rules, ICF in clinical protocols.

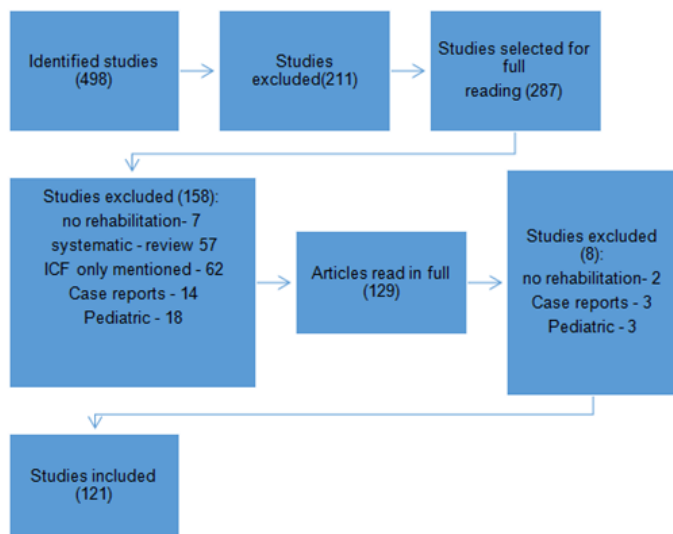


Figure 1 Criteria for studies identification.

Results

Our map included 121 articles. Table 1 present the descriptive analysis. Table 1 Descriptive analysis of the articles included in the mapping (f=121).

Table 1 Descriptive analysis of the articles included in the mapping (f =121)

Outcomes	fr% (f)
Methodology	
Qualitative	47.1 (57)
Quantitative	45.4 (55)
A mixed method (qualitative and quantitative)	7.4 (9)
ICF use	
ICF Development/ validation/analysis of outcome assessments	42.9 (52)
ICF linking rules	38.1 (46)
ICF in clinical practice	19 (23)
Expertise areas	
Neurology	52 (43)
Mixed conditions	17 (14)
Orthopedics	8 (6.6)
Ophthalmology	6 (5)

Outcomes	fr% (f)
Occupational Health	6 (5)
Pneumology	5 (4.1)
Rheumatology	5 (4.1)
Geriatrics	4 (3.3)
Oncology	4 (3.3)
Audiology	3 (2.5)
Mental health	3 (2.5)
Infectology	2 (1.7)
Obesity	2 (1.7)
Cardiology	2 (1.7)
Amputees	1 (0.8)
Angiology	1 (0.8)
Study design	
Cross-sectional	45,5 (55)
ICF Linking Rules	23,9 (29)
Content Validity	12,5 (15)
Longitudinal	4,9 (6)
Retrospective	5,8 (7)
Clinical Trials	0,8 (1)
Mixed study design (Ex: specialist consensus + linkage study, expert consensus + cross-sectional study, cross-linkage)	6,6 (8)

Discussion

Our results demonstrate a higher prevalence of studies using cross-sectional observational study designs. According to Rehabilitation strategies in the 21st century, longitudinal non-accompaniment of functioning and disability hinders the process of health care.¹³ Especially, considering the profile of chronic diseases and the cost involved in rehabilitation, the lack of emphasis on a culture of follow-up care seems to be an obstacle to comprehensive care and biopsychosocial model.¹⁴ The second most used methodology was the one that used ICF linking rules (n =29). The comparison of the contents present in the functional outcome assessment with the ICF model,¹⁵ language¹⁶ and system¹⁷ can be useful to evaluate the quality of healthcare. Regarding the way ICF use, most of the studies found in this map used the classification to develop, validate or analyze instruments (n=69). This predominance can be explained because most of the studies had as purpose the identification of information to develop Core Sets and their validations. Mc Intire & Tempest¹⁸ point out that the methodology of building the Core Sets has been widely used. The second most used method was to link, correlate or compare items with the ICF categories (n=44), leaving the use of ICF in the clinical practice of rehabilitation as the last form of the use of ICF (n=23). Escorpizo et al.¹⁹ mentioned that there appears to be a significant gap between the use of ICF and its clinical documentation, as well as between its concepts and its actual application. One of the reasons for this low adherence was explained by Farias and Buchalla,²⁰ who discuss the classification of a highly complex phenomenon. The authors complement that from a practical point of view, their application requires a time that is many times greater than

the consultation itself, in addition to the inherent aspects of changes of conduct by health professionals.

The ICF difficulty as a clinical tool can be overcome through the use of instruments based on the ICF model not necessarily with the coding system (adopt is to adapt). The decision about how to use the classification in depends on many variables²¹: personal, professional interest (micro level), manager support (mesolevel) and health policies (macro level). Cerniauskaite et al.,⁹ pointed out that the fact that classification proposes what to evaluate and not how to evaluate is a difficulty that requires refinements. The choice of the best instruments to compose the biopsycosocial evaluations depends also on the management of the health services, the qualification of the professionals and the time available for the planning of the therapeutic proposals. The decoupling of the functional understanding model based on the ICF and the digital alpha classification system of the classification can facilitate its adaptation and implementation. The dissemination of the broad meaning of the biopsychosocial term seems the way to guarantee the incorporation of ICF into the organizational practice of rehabilitation care.²¹ A lot of progress started in the relevance and needs for discussion of functioning and disability; however, the insertion of ICF at the micro level of health care necessarily depends on individual professional choices and personal decisions.²² The development and improvement of ICF biopsychosocial assessment should be tested and incorporated in routine rehabilitation care. Experience gained from such research may serve to improve globally accepted guidelines.

Conclusion

121 studies were included in this mapping. The results show that ICF use in the years 2012 to 2016 was homogeneous concerning the qualitative and quantitative methodologies. Among the quantitative designs, there was a predominance of cross-sectional studies. The most used form of ICF was the development and validation of functional outcome assessments.

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Conflicts of interest

The author declares there is no conflicts of interest.

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