

Linkage between International Classification of Functioning, Disability and Health Qualifiers and Functional Levels of the Functional Independence Measure: a Proposal for Applicability in Clinical Practice

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ABSTRACT

Purpose: *This study aimed to propose a link between Functional Independence Measure (FIM) levels and International Classification of Functioning, Disability and Health (ICF) qualifiers for use in low- or middle-income countries such as Brazil.*

Method: *A multidisciplinary committee was formed to discuss the need for standardisation of the classification so that different professionals could accurately record the functioning and for the standardisation to be meaningful for the individual and his /her support group, allowing observation and participation in the rehabilitation process. The proposed steps to adapt linking ICF qualifiers with FIM scores and functional levels were: 1. Inversion, 2. Parity, 3. Transposition, and 4. Adaptation.*

Results: *FIM's seven levels of functioning have been linked to the five ICF qualifiers. FIM levels "7 (independent)" and "6 (modified independence)" have been linked to qualifiers*

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“0 (no problem)” and “1 (mild problem)”, respectively. FIM levels “4” and “5” have been grouped and linked to ICF qualifier “2 (moderate)”. FIM levels “3” and “2” have been related to qualifier “3 (severe)”. FIM level “1” which indicates complete dependence has been linked to qualifier “4 (complete)”.

Conclusion: *This methodology allows for the creation of a link between the FIM and ICF, preserving clinically important information and having a description and clear relationship. It is thus able to facilitate clinical use of the ICF.*

Key words: *International Classification of Functioning, Disability and Health, Patient-reported outcome measures, Functional Independence Measure.*

INTRODUCTION

Functional status information is used in the rehabilitation of people with disabilities and in care facilities for older adults as a way to measure the outcomes of interventions and to organise care. It is also needed in order to understand the population’s health (Üstün et al, 2003; Giacomini et al, 2008). The health system’s routine and consistent collection of this information and making it available in administrative records permits management of the quality of care and the development of health research and public policies (World Health Organisation, 2001; Iezzoni & Greenberg, 2003; Üstün et al, 2003). To this end, the World Health Organisation (WHO) created the International Classification of Functioning, Disability and Health (ICF), which incorporates the biopsychosocial model of health to create indicators of functioning and health.

The ICF was developed to provide a standardised language that promotes consistency and facilitates communication among professionals and countries (Cieza et al, 2002; Üstün et al, 2003; Jette, 2009; World Health Organisation, 2001, 2020). The ICF utilises alphanumeric codes, allowing for the statistical analysis of data and the organisation of health components, thus supporting clinical and epidemiological studies. Moreover, it promotes the sharing of information in professional practice and research, and provides the necessary indicators for evidence-based policy making.

Routine collection of data with consistent quantification is crucial for capturing the levels of difficulty and support needed by individuals entering the healthcare system (World Health Organisation, 2001; Üstün et al, 2003). Functioning encompasses not only body functions but also physical and social environmental factors that impact overall well-being (World Health Organisation, 2001; Üstün

et al, 2003). Therefore, analysing the influence of personal and environmental factors on functioning is essential, even in countries with lower socioeconomic conditions. Studies have highlighted disparities in the prevalence of physical disabilities among vulnerable groups, including older adults, individuals with chronic diseases, and those with other disabilities (Barreto et al, 2022). These populations also experience negative effects on their quality of life and level of social participation (Giacomin et al, 2008; Neves-Silva & Álvarez-Martín, 2014; Cruz et al, 2019; Silva et al, 2021). Hence, examining the impact of personal and environmental factors on functioning is vital for comprehensive healthcare planning and addressing health inequalities.

Due to the lack of resources and infrastructure, low- and middle-income countries (LMICs) often have worse accessibility conditions in both private and public environments. This can make it difficult for individuals to acquire the necessary resources to face these barriers, which ultimately impacts their health and degree of activity and participation, leading to increased disability and impairment (Neves-Silva & Álvarez-Martín, 2014). Although Brazilian legislation is advanced, the lack of details about functional status information (FSI) makes it difficult to analyse and develop policies for people with different degrees of dependence (Giacomin et al, 2008; Barreto et al, 2022).

Among the strategies used to initiate the process of health data and information collection using the ICF is the possibility of linking the instruments now used in clinical practice with the ICF's codes and categories. This systematic process of linking was developed by Cieza et al and is based on specific, updated rules for linking the ICF and measuring instruments (Cieza et al, 2002, 2005, 2019). This process is necessary to convert data from different measurement instruments into universal language, allowing the information to be utilised by individuals who are unfamiliar with the specific instrument. This process not only facilitates the comparison of functioning measured with different instruments but also enables the comparison of information in various research, clinical, epidemiological, and social contexts. Such comparisons are essential for developing more targeted and effective public policies (Üstün et al, 2003; Cieza et al, 2005). One of the instruments most linked to the ICF and widely used in rehabilitation centres is the Functional Independence Measure (FIM) (Cohen & Marino, 2000; Silva et al, 2020). This scale was developed by the American Congress of Rehabilitation Medicine and the American Academy of Physical Medicine and Rehabilitation (Cohen & Marino, 2000).

In order to incorporate the FIM into the biopsychosocial model effectively, it is necessary to establish a connection to the ICF model. This connection will facilitate the identification of concepts measured by the FIM that are associated with the categories of the ICF, including body functions, activities, participation, and environmental factors (Ovando et al, 2016; Ballert et al, 2019; Silva et al, 2020; Silva et al, 2021).

However, existing literature only highlights the content-based linkage between the FIM and ICF, without establishing a clear relationship between the scoring levels of the FIM and the qualifiers of the ICF (Silva et al, 2020). Following assessment, these categories are assigned severity grades using ICF qualifiers, which range from “0” to “4”. Here, “0” represents no problem, and “4” indicates a complete problem. Nevertheless, consensus has not been reached regarding the appropriate coding for linking the ICF qualifiers with the FIM score.

Only in the study conducted by Fréz et al (2013) is there a proposed linkage between the FIM and the ICF through the identification of the relationship between qualifiers and categories. However, the authors did not provide a detailed description of the criteria adopted for the grouping of FIM scores and only reported the inversion of values. This limitation in the study disregards significant clinical aspects, thereby reducing its practical relevance. Furthermore, the authors did not consider information regarding the impact of environmental factors on functioning, which holds crucial importance for clinical professionals and the formulation of public policies pertaining to accessibility, inclusion, and equity, particularly in low- and middle-income countries. Furthermore, the FIM is a reliable and valid rehabilitation tool that requires administration by trained professionals to ensure accurate results. Additionally, expertise is necessary when using the ICF to qualify categories, and the qualification process involves evaluating functioning using existing clinical practice tests and instruments. The results of these measures will determine the qualification.

Both the FIM and the ICF can be used based on an individual’s perception, following the same measuring criterion. Therefore, the linking of the ICF with the FIM facilitates precise information dissemination and improves the identification of environmental factors. This integration allows for the integration of data from diverse sources, leading to a comprehensive understanding of an individual’s functioning. Examples include identifying architectural barriers in domestic environments, such as a lack of accessibility, and identifying environmental factors that influence participation in community activities, such as inaccessible

transportation. This information can guide interventions and environmental modifications to enhance functioning and improve individuals' quality of life.

Objective

The universal applicability and simplicity of the ICF make it particularly valuable, especially in low- and middle-income countries, where standardised and comprehensive frameworks are crucial for effective healthcare delivery and research. Hence, the objective of this proposed linkage is to establish a correlation between FIM levels and ICF qualifiers, specifically designed for implementation in contexts, such as in Brazil.

METHOD

Instruments

Functional Independence Measure (FIM)

The Functional Independence Measure (FIM) is a widely used and extensively studied tool in rehabilitation, known for its validity, relevance, sensitivity, and reliability, which justify its use in clinical practice. Although it has been validated in Brazil in a self-reported questionnaire format (Riberto et al, 2004), it is important to ensure that it is administered correctly by qualified professionals to ensure accurate and consistent results (Cohen and Marino, 2000).

The FIM is a quantitative measurement scale used to assess functional limitations. It evaluates 18 tasks encompassing the subcategories of self-care, sphincter control, transfer, locomotion, communication, and social cognition. Each item assessed in the FIM receives a score ranging from "1" to "7", with "1" indicating total dependence and "7" indicating complete independence. The following scores are possible for each item of the FIM:

7 - Total independence,

6 - Modified independence,

5 - Dependence with supervision,

4 - Dependence with minimal assistance (client performs 75% of the task independently),

3 - Dependence with moderate assistance (client performs 74-50% of the task),

2 - Dependence with maximal assistance (client performs less than 49% of the task but contributes at least 25% of the effort),

1 - Complete dependence (client performs less than 24% of the task).

The total score of the FIM ranges from 18 to 126 points, with higher scores indicating greater independence (Riberto et al, 2004).

International Classification of Functioning, Disability and Health (ICF)

The ICF taxonomy is divided into two main parts, each consisting of two components: Functioning and Disability, which includes body functions (b), body structures (s), and activities and participation (d); and Contextual Factors, which encompasses environmental factors (e) and personal factors (not classified by the ICF). Each letter is followed by a numeric code that starts with the chapter number (one digit), followed by the second level (two digits), and the third and fourth levels (one digit each). The example below was presented by Pereira et al (2022) and can help to better understand this taxonomy.

d4	Mobility	(first level code)
d450	Walking	(second level code)
d4501	Walking long distances	(third level code)

Subsequently, each ICF category should be accompanied by a qualifier, which is used to grade the client's level of functioning in each ICF category, indicating the client's overall level of impairment, the level of assistance required, and the extent of participation restrictions.

The qualifier is a numerical scale ranging from "0" to "4", with higher scores indicating more severe impairments or restrictions. The five levels of the ICF qualifier are as follows:

Qualifier .0: No problem, limitation, or restriction (0 to 4% problem)

Qualifier .1: Mild problem, limitation, or restriction (5 to 24% problem)

Qualifier .2: Moderate problem, limitation, or restriction (25 to 49% problem)

Qualifier .3: Severe problem, limitation, or restriction (50 to 95% problem)

Qualifier .4: Complete problem, limitation, or restriction (96 to 100% problem)

The ICF qualifier provides a standardised way to evaluate a client's disability and provides a common language for healthcare professionals to communicate

the client's level of impairment or restriction. It helps healthcare providers to assess the effectiveness of interventions, monitor changes in the client's condition over time, and communicate the client's level of functioning to other healthcare providers.

Overall, the ICF qualifier is an essential tool for evaluating the functioning status of clients and developing effective interventions to improve their quality of life.

Linking Procedures and Rules

The linkage between the concepts measured by FIM and the ICF is well-discussed in the literature, and there is a consensus on this relationship published in a systematic review (Silva et al, 2020). However, this study aimed to relate the scoring options of FIM with the qualifiers of ICF, following a clear, consistent, and standardised methodology (Cieza et al, 2002, 2005, 2019). The aforementioned rules underwent a refinement process (Cieza et al, 2019), in response to the need for updating them to enable more consistent information in relation to the linking process between ICF categories and the concepts measured by outcome measures. Among the ten rules originally proposed by Cieza et al (2016), only five were applied to link the qualifiers to the scoring of the FIM (Chart 1).

Chart 1: The Application of Five out of Ten Linkage Rules to Establish Connection with the International Classification of Functioning, Disability, and Health (ICF)

- 1 Acquire good knowledge of ICF's conceptual and taxonomic concepts, as well as its chapters, domains, and categories of classification, including definitions, before beginning to link significant concepts to ICF categories;
- 2 Identify the purpose of the information to be linked and the most relevant concept(s) to be linked to the ICF;
- 3 Identify any additional concept contained in the information, beyond the principal concept(s) identified in the previous step;
- 4 Identify and document the perspective adopted in given information upon linking it to the ICF;
- 5 The description undertaken for each level allows for adequate classification of the answer.

(Adapted from Cieza et al, 2019)

Committee of Experts

A committee of experts consisted of a work group comprised of three physiotherapists, one speech therapist, one psychologist, and one occupational therapist, all with ample experience in assisting adults and seniors with physical disabilities. The committee analysed and discussed levels of functioning to establish a relationship between the scales and the qualifiers the ICF.

This expert committee discussed the need for standardisation of the classification (ICF) to ensure that different professionals can accurately and consistently record functioning. There was a concern that the classification should be easily understood by the individuals being classified, allowing for their observation and participation in the rehabilitation process. Due the discrepancy between the levels of functioning in the ICF and the scoring of the FIM, it was important to consider the need to group similar conditions within the FIM levels. To address this, it was necessary to highlight the assistance required for task completion, the time involved during activities, and the necessary adaptations in order to discern the degree of an individual's independence. This involves evaluating the level of support needed and organising the environment and support network. Although the ICF allows for classifications considering functioning with and without assistance, in the Brazilian context the FIM is primarily applied through interviews where information about the required assistance is gathered based on individuals' perceptions, as described in the FIM application manual (Riberto et al, 2004).

To organise the proposed linkage between the qualifiers of the ICF and the functional levels of the FIM, the expert committee conducted virtual meetings to discuss the classification of activities assessed in the FIM. These activities had been previously evaluated by the multidisciplinary team at different points in time and by different professionals considering important aspects of functioning. Subsequently, the expert committee proposed organisational phases to standardise the linkage process:

1. **INVERSION:** Inversion of the numeric order of classification, since the FIM measures the degree of independence and considers its highest number "7" to indicate greater independence and "1" for totally dependent, while the ICF has a negative scale which measures the magnitude of the problem/difficulty, considering the minimum value "0" as being totally functional/having no difficulties and "4" non-functional/with great difficulty.

2. **PARITY:** Due to the discrepancy between the scoring options of the FIM and the qualifiers of the ICF, it was necessary to adapt the scoring options during the linkage process. To do so, some FIM levels were grouped to match the number of options in the ICF qualifiers. Thus, the FIM score “3” was linked to ICF qualifier “3”, as it indicates the need for assistance from another person to complete the activity, which suggests a severe difficulty and an important reference for assistance. FIM levels “4” and “5” were then grouped together as they indicate a mild to moderate problem, meaning that the person needs assistance from another person for specific interventions, environment preparation, or less intense monitoring.
3. **TRANSPOSITION:** Adaptation of the generic and numeric scale of the ICF qualifiers for the qualitative description of the FIM score, distinguishing a person’s difficulty and need for external help to carry out the activity. However, the quantification of the FIM refers only to the caregiver’s assistance and does not consider the percentage of help provided by environmental factors. Consequently, the first and last ICF qualifiers have little percentage variation, making it impossible to group more than one FIM functional level for each qualifier.
4. **ADAPTATION:** Adaptation of the description to contemplate the different categories following the same concepts.

Application of the Linking

After the above cited stages of inversion, parity, transposition and adaptation, the committee of experts met to discuss relevant categories of all chapters of the activity and participation component. All discussions were conducted by an interdisciplinary team based on clinical cases found in a physical rehabilitation centre to confirm the presence of consensus and applicability of the link established.

RESULTS

Table 1 provides a summary of the consensus reached by the expert committee regarding the conversion of FIM scores into ICF qualifiers, encompassing the inversion, parity and transposition phases. The committee agreed to maintain three distinct levels of functioning, corresponding to scores “7”, “6”, and “1” on the FIM, as they are highly specific and crucial for differentiation. The level

indicating the need for total assistance was kept separate to represent a severe and specific condition, reflecting a high degree of dependence. This level, FIM level “1”, is associated with the ICF qualifier “4 (complete problem)”.

Furthermore, the FIM levels of functioning “7 (complete independence)” and “6 (modified independence)” are linked to the qualifiers “0 (no problem)” and “1 (mild problem)” respectively. These qualifiers distinguish the need for additional time to perform an activity, the presence of resources in the physical environment, and the presence of risk.

Table 1: Suggested Relationship between ICF Qualifiers and FIM Functional Levels

Qualifier	ICF			FIM	
	Quantitative descriptor	Qualitative descriptor	Level	Quantitative descriptor	Qualitative descriptor
0	0-4%	No problem	7	-	Complete independence
1	5-24%	Mild problem	6	-	Modified independence
2	25-49%	Moderate problem	5 - 4	+75%	Modified dependence
3	50-95%	Severe Problem	3 - 2	74-50%	Modified dependence and Complete dependence
4	100%	Complete Problem	1	25%	Total dependence

ICF: International Classification of Functioning, Disability and Health; FIM: Functional Independence Measure

The Adaptation phase encompassed proposing a qualitative description for each item of the ICF to facilitate the identification of individuals’ needs and functioning. The multidisciplinary team conducted a comprehensive review of the instrument to ensure clarity and to identify clinically significant differences in interpretation. This process involved observing and discussing each item until a consensus was reached among the professionals, resulting in an appropriate qualitative description for all domains.

The entire process consisted of six meetings, each lasting at least 180 minutes. The concept of assistance provided was given paramount consideration during these discussions. The outcome of this process is presented in Table 2.

Table 2: Description of Levels of Functioning proposed after linking ICF Qualifiers with FIM Functional Levels

LEVELS OF FUNCTIONING
<p>FIM Level 7 (Complete Independence) - ICF Qualifier: 0 (No Problem)</p> <p>When activity is done safely, autonomously, and independently, under any condition or in any situation, in a reasonable amount of time, with no modifications or need for interference in environmental factors.</p>
<p>FIM Level 6 (Modified Independence) - ICF Qualifier: 1 (Mild Problem)</p> <p>When done independently, less safely, taking longer than reasonable or with some modification, with the presence of some environmental factor, which may be an assistive device or the need for occasional repetition.</p>
<p>FIM Level 5 (Moderate Assistance) - ICF Qualifier: 2 (Moderate Problem)</p> <p>FIM Level 4 (Moderate Assistance) - ICF Qualifier: 2 (Moderate Problem)</p> <p>When mediation from a third party is needed, possibly for supervision, offering a verbal command or guidance simply to motivate/suggest, and/or preparing the environment and/or helping in the setup. The participation of a third party can be done by people with little training and intermittently.</p>
<p>FIM Level 3 (Moderate Assistance) - ICF Qualifier: 3 (Severe Problem)</p> <p>FIM Level 2 (Maximal Assistance) - ICF Qualifier: 3 (Severe Problem)</p> <p>When the intense help of others is called for, as the individual only executes part of the task and needs help to complete it, which requires a caretaker who is better trained and who can dedicate more time.</p>
<p>FIM Level 1 (Total Assistance) - ICF Qualifier: 4 (Complete Problem)</p> <p>When maximal assistance is needed to conduct the activity, with practically no participation by the individual.</p>

FIM: Functional Independence Measure; ICF: International Classification of Functioning, Disability and Health

DISCUSSION

The expert committee consisted of a multidisciplinary team that was already integrated due to their clinical practice, facilitating alignment and discussions and enabling consensus on the linkage between the functional levels of the FIM and the qualifiers of the ICF. The committee's final proposal involved linking the seven levels of functioning in the FIM to the five ICF qualifiers. FIM levels "7" (independent) and "6" (modified independence) were linked to qualifiers "0 = no problem" and "1 = mild problem," respectively. FIM levels "4" and "5" were grouped and linked to the ICF qualifier "2 = moderate". FIM levels "3" and "2" were associated with the qualifier "3 = severe". FIM level 1, indicating complete dependence, was linked to the qualifier "4 = complete".

Most studies linking the ICF and FIM instruments only map the instrument items to ICF categories and conduct agreement tests on the evaluator's qualifier choices. In this study, similar to Frez et al (2013), magnitude linking was performed to establish correspondence between the FIM instrument score and ICF qualifiers. This process considered new health concepts that seek to value the influence of environmental factors and strategies that allow conversion to the ICF language, even when not performed in the study, facilitating the production of Functional Status Index (FSI).

The expert committee established a connection between FIM level "1 (total dependence)" and ICF qualifier "4 (complete problem)". In the context of eating, for instance, it indicates the individual's inability to receive food by mouth, necessitating tube feeding. Conversely, FIM levels of functioning "7 (complete independence)" and "6 (modified independence)" were associated with qualifiers "0 (no problem)" and "1 (mild problem)" respectively.

The committee deemed it crucial to differentiate the levels of independence in order to discern the need for environmental modifications or accessibility. For example, even though individuals at level "6 (modified independence - 1 mild problem)" are considered independent, they may require minor environmental adjustments, adaptations, assistive technology, or more time than usual to perform a task. By maintaining these distinct levels of functioning and linking them to specific qualifiers, the assessment process captures significant variations in functional abilities, encompassing the level of dependence, environmental support, and potential risks. This approach enhances the clarity and precision of evaluating individuals' functioning status, thereby facilitating appropriate interventions and support.

In contrast, Fréz et al (2013) grouped levels "7 (complete independence)" and "6 (modified independence)" and linked them to the qualifier "0 - no problem." However, this grouping underestimates the effect of environmental factors on levels of independence, ignoring the fact that clients often do not become completely independent due to environmental barriers which make them take longer or spend more energy to complete the task. For this reason, in the present study, the authors chose to differentiate levels of independence, linking them to different qualifiers to estimate the impact of the environment on functioning. They also chose to group FIM levels "3" and "2" which refer to moderate and maximum dependence respectively, and linked them to the ICF qualifier "3 – severe problem." This is because in these cases there is a need for assistance in more than 50% of the task.

Similar to the linking rules used in Fréz et al (2013), the grouping of FIM scores “5 (supervision)” and “4 (moderate assistance)” was maintained in this study but associated with a different qualifier. While Fréz et al (2013) linked these scores to the qualifier “.1 - mild problem,” the current authors chose to link them to the qualifier “.2 - moderate problem.” This is because both levels “5” and “4” indicate the need for slight support and supervision with minimal effort required from the caregiver. Therefore, following the criteria adopted in this study, this could not be classified as a mild problem.

Differentiating between various levels of functioning enables one to identify whether an individual maintains independence in other probable environmental situations of regular life, as described by Okawa et al (2008). The instrument also allows one to determine the need for environmental facilitators to complete tasks safely and efficiently. The need for support from another person to perform tasks was categorised into three levels of functioning: total assistance, moderate assistance requiring the presence and effort of others at the time of completion, and light or intermittent assistance. The results were similar to those of Okawa et al (2008) who aimed to operationalise the qualifiers for social security in Japan.

Low- and middle- income countries can benefit from this methodology as it provides a simple form of compiling health information and analysing the impact of environmental barriers or facilitators on functioning after a disabling health condition. This proposed linking between the FIM score and ICF qualifiers aims to facilitate the coding of clinical information for the FSI through direct conversion, enabling analysis of environmental contexts for decision-making in therapeutic planning. The publication of these data can be important for the development of public policies for individuals with disabilities.

The strategy used to link the ICF with the FIM proved effective in preserving clinically relevant information and establishing clear relationships between support needs and environmental factors. This approach facilitates the clinical use of the ICF, fosters interdisciplinary discussions with the multidisciplinary team, and enables productive conversations with relatives (Rauch et al, 2006). Additionally, this strategy supports the production of health indicators that highlight important information about support needs, particularly regarding caregivers who assist with functioning, as identified by Okawa et al (2008).

Although the benefits of the proposed linkage between the ICF and the FIM are evident and it has been validated by a committee of experts, it is important to note

that this proposal has not yet been analysed in psychometric terms. The conversion to the ICF reduces the number of responses and alters some characteristics of the instrument which needs to be further studied to understand possible differences in the information produced by the instrument with and without linkage and to discuss the impact on clinical information.

Another limitation of the study is related to the fact that in the Brazilian context the FIM is predominantly administered through interviews, where information regarding the required assistance is collected based on individuals' perceptions, as described in the FIM application manual (Riberto et al, 2004). This approach gathers data on performance. To evaluate capacity and establish contrasts between the constructs of capacity and performance, as recommended by the ICF, it would be necessary to include an analysis of task execution in a standardised environment. Therefore, the proposed linkage in this study provides relevant data for performance evaluation by linking the ICF qualifiers to the functional levels of the FIM; however, they are not suitable for assessing capacity.

It is important to emphasise that the process of establishing the linkage is complex. In this study, the relationship between the FIM functional levels and the ICF qualifiers were explicitly identified, following the rules proposed by Cieza et al (2019). Out of the ten rules, only five were utilised as they were originally proposed to link the concepts of the instruments to the categories of the ICF, rather than specifically linking to the qualifiers. Therefore, the five rules (as shown in Chart 1) were employed that could be replicated to standardise the linkage process and make it clear and reproducible.

In conclusion, the use of ICF has changed the way of thinking, measuring, projecting, collecting, and analysing data about functionality and disability (Madden & Bundy, 2019). This is why the WHO has encouraged collecting information relevant to rehabilitation by using ICF; however, the WHO recognises that there is still a long way to go for this to be implemented worldwide (World Health Organisation, 2020). Therefore, studies like this one, which propose a way to use the precepts of the ICF in an easy and inexpensive way and that can be used in low- and middle- income countries, may represent great relevance, mainly, for proposing an equitable use of the ICF. Future studies and practical application by work groups are still needed to verify the benefits and acceptance by professionals and to facilitate understanding of the biopsychosocial model and the guidance of public policies.

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