

Authors: \*Daniel Cid \*\*Mauricio Zepeda \*\*\*Héctor González \*\*\*\*Germán Rojas  
 \*Physical Therapist, Master of Health Management \*\*Psychologist, Master Integration of People with Disabilities \*\*\*Physical Therapist, Master in Neurology and Behavioral Science \*\*\*\*Bachelor business administration and economics, Master in Methodology and statistics  
 Centro de Innovación y Desarrollo en Ámbitos de Salud (cIDEAS), Chile

**Abstract** The International Classification of Functioning of Disability and Health (ICF) gives us a universal and common language with a variety of applications, because it focuses on patient-based profiles of functioning. Its use in clinical management facilitates follow-up, coordination, collaboration, and continuity at many different levels of intervention. In Chile, physical therapists have participated in professional development courses in which they analyze the ICF categories, considering the level of care in which they work, and propose functioning profiles with indicators that strengthen clinical management in order to coordinate interventions at different levels of care, from an inter-professional perspective and according to the biopsychosocial model of functioning and disability (ICF). A survey was carried out 6 months after the courses had been completed, with the goal of discovering the impact of the courses in three dimensions: "Educational Strategy," "Biopsychosocial Model," and "the ICF in Clinical Management." The survey results confirmed the necessity of carrying out multi-professional courses. They also concluded that this educational strategy has high approval among participants, and that the use of ICF does improve clinical management.

**Key Words:** Educational strategies, Biopsicosocial Model, ICF, Clinical Management, Case Report

## Introduction

For three years, a two-level educational strategy has been used (in Chile) to help more than 200 health professionals accurately use this common collaborative terminology to facilitate clinical management and professional intervention planning in acute, sub-acute, and chronic processes, as well as hospital intervention, primary care, return-to-work activities, and/or sports and school inclusion. The two-level strategy uses a general course called "Introduction" which uses group work and development of fictitious case reports. The second level is an application course called "Basic," which can be either group- or individual-based. (In the first phase, 60 physical therapists in both the private and public health sectors from Region IV to Region IX in Chile have been trained.) In this course, participants work through real case reports. These two courses are based on the functioning and disability model, the bio-psycho-social model, human rights, social inclusion, cross-disciplinary and clinical application centered on patients with varying health conditions and social contexts. As a final project, students must use real or fictitious case reports to generate and present functioning profiles in varying contexts. The comprehension and application of the model is taught using three teaching methods as an educational strategy: 1) Master class; 2) Discussion; and 3) Demonstration of clinical cases (See Images 1 and 2)

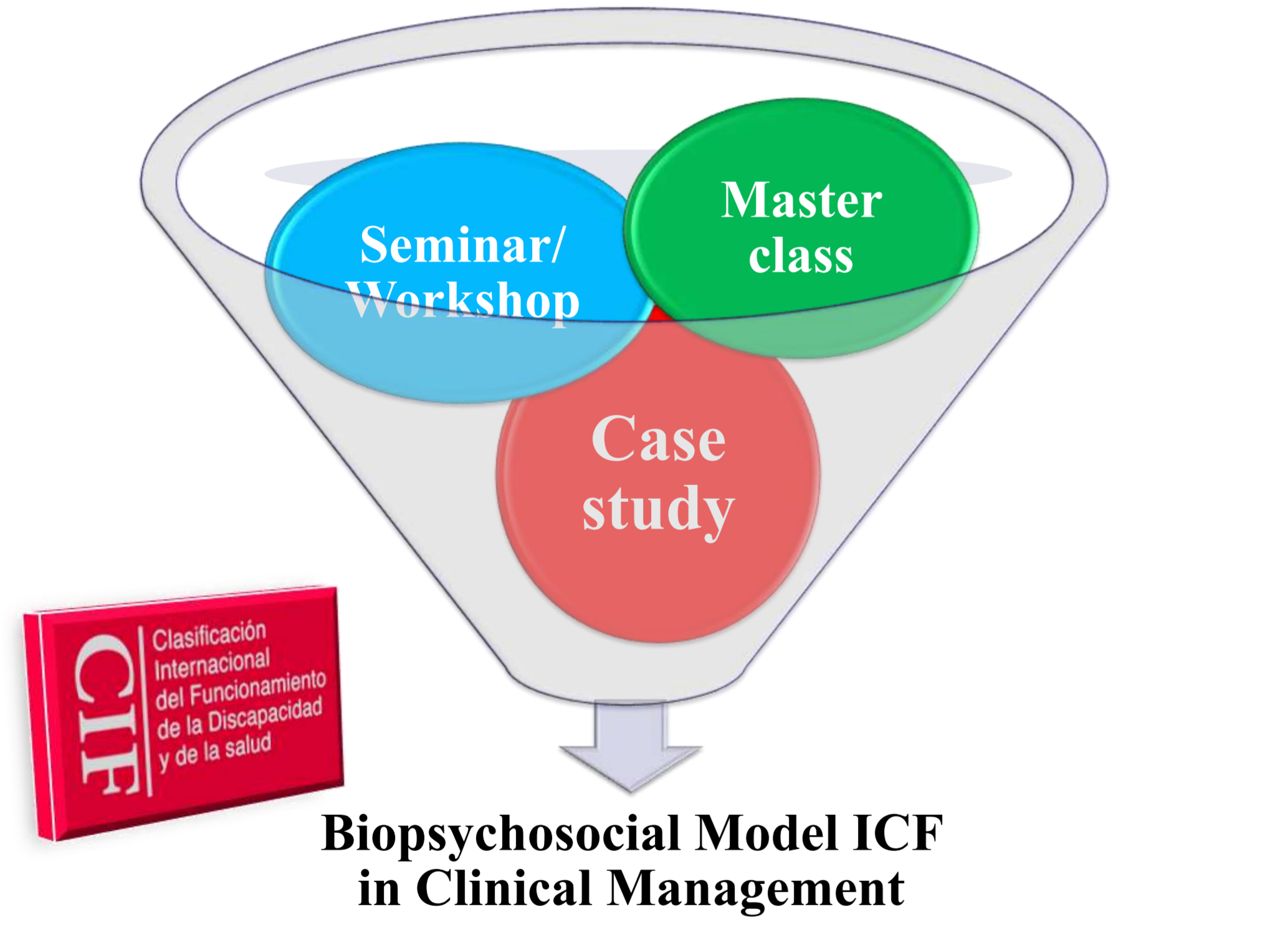


Image 1: Course Methodology

## Methods & Materials

A qualitative-quantitative study was carried out regarding the diffusion strategies and impact of the "introduction" and "basic" courses, from the clinical management angle using ICF-based case reports. The qualitative analysis consisted of 11 randomly selected reports made by the professionals after their training. The data analysis performed was the Strengths, Weaknesses, Opportunities, and Threats Analysis. (SWOT). For the quantitative study, an Ad-Hoc measuring tool was applied. This instrument was sent to 54 participants who were then asked by phone one time to send responses, and 17 responded. The respective statistical analyses were applied to this final sample.

## Results



Image 2: Activities and products generated in the ICF course. The map indicates where the participating professionals are from, the type of class forum used, masters classes locations, content tests, case defenses, impact activities (presentations in congresses of cases), and group meetings.

**Educational Strategy Dimension:** A high percentage of participants believed that the course helped them improve their intervention plans in their workplaces (94%) and their work plans and patterns (88%). An acceptable percentage of participants agreed that the educational strategies allowed them to improve their own work tasks, (71%) and those of their institution (77%). Finally, difficulties in strategies for cross-disciplinary communication were noted, with an acceptance rate lower than 50% (47%).

**Clinical Management with ICF-based Biopsychosocial Dimension :** An important acceptance rate of patient problems was observed with respect to course participants' improved understanding of new clinical paradigms (100%) as well as high comprehension rates of the different clinical perspectives such as biopsychosocial (88%), human rights (77%), cross-disciplinary (82%) and cross-disciplinary coordination(77%).

**Clinical Management and Professional Development Dimension:** The ICF-based model of clinical management has led to better professional performance: in evaluation of patients (88%), teaching strategies (82%), clinical performance(88%) and continuity of research(82%). Presentation of data at scientific events is relatively low (65%).

Positive Strategy (+)	
Negative Impact (-)	<ul style="list-style-type: none"> <li>• Improve analysis of patient's problems</li> <li>• Improve intervention plans according to patient's context</li> <li>• Improve use of biopsychosocial model in patient analysis</li> <li>• Improve development of work plans and patterns</li> <li>• Improvement in cross-disciplinary perspective</li> <li>• Facilitate cross-disciplinary coordination</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve cross-disciplinary communication strategies</li> </ul>
Negative Strategy(-)	

Table 1: Impact v. Strategy "Introduction" and "Basic" Courses with ICF base.

COURSE STRENGTHS	%
Widen student's perspective in their own discipline	100%
Require use of collaborative teamwork	63%
Include the patients' own needs	54%
Systematically evaluate progress	63%
Analyze context and integrate its variables in intervention	73%

COURSE WEAKNESSES	%
Need more time to analyze all cases more thoroughly	100%
Lack of bibliography to read	46%
Still follows logic of cause-effect model, such as lack of diffusion of ICF, and cultural problems as far as lack of teamwork	27%

Table 2: SWOT Analysis (relevant only to course strengths and weaknesses)

## Conclusions

**FUTURE IMPROVEMENTS:**

- Cross-disciplinary communication must be improved, and thus courses must be imparted to the entire network. (Note: During 2015, the "Introduction" course was extended to professionals in varying disciplines.)
- Hold congresses and courses that will increase the number of professionals that discuss the ICF and make possible adaptations to this instrument, to make it more accessible.
- The positive results of the survey support the methodology of application in the physical therapists' professional context, while emphasizing the problems of the patient.

**CONCLUSIONS:**

- There are limitations in cross-disciplinary communication.
- The educational strategy used is adequate, with a high level of student approval.
- The impact on professional clinical management is favorable with the use of the ICF.
- Course participants consider that the formative model is understandable and accepted. (See Image 3)
- The teaching methodology for case development and research should be improved.

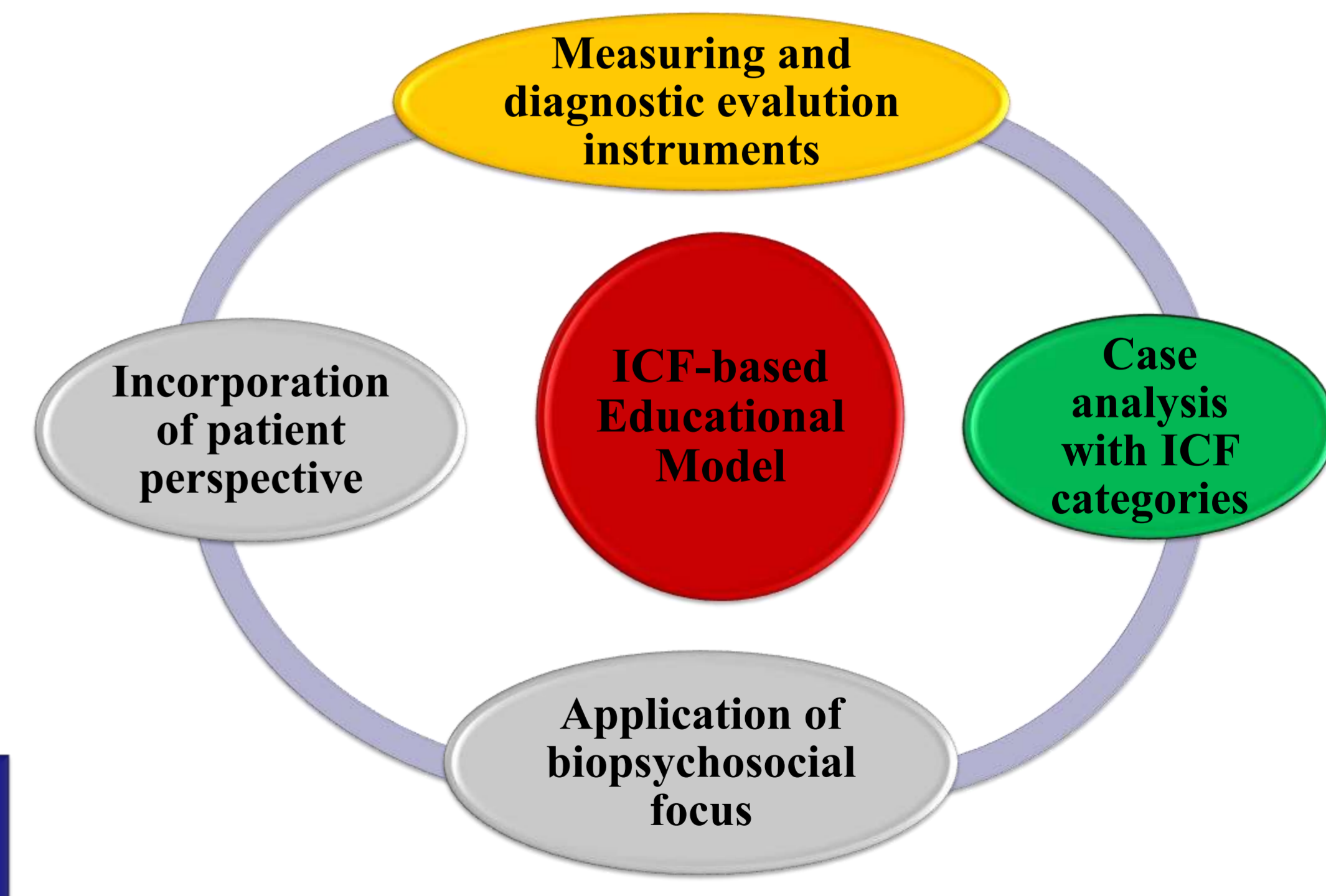


Image 3: Conceptual Pillars of the Course

## Acknowledgements or Notes

We want to thank the professionals that collaborated on and have been part of this course, the institutions that support this activity and have carried out the training. We also thank the Past President of the school of kinesiologists (Tomás Hernández) for his constant support, as well as Miss Chelsea Dietsche who constantly aids us with translation assistance.