

# The ICF in clinical physiotherapy training

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**Abstract** The ICF was introduced as the overt basis for clinical decision making by physiotherapy students at UCT in 2009. Twelve student clinical assessments of children with disabilities from 2008 were compared with eleven from the 2009 cohort by two independent assessors who were blind as to group and the purpose of the study. The assessments after the introduction of the ICF were found to be significantly more comprehensive and resulted in better intervention planning.

## Introduction

### Background:

Clinical reasoning is one of the most difficult skills that a physiotherapy student has to learn. The student needs to integrate information related to health condition, the impairments and the functional limitations in order to develop an intervention programme which is appropriate to the context of the patient.

Prior to 2009, the Division of Physiotherapy at the University of Cape Town subscribed rather loosely to the ICF framework as an underlying philosophical approach underpinning the assessment and intervention planning of patients. Objective assessment of function was not strongly linked to participation limitations, with the students often putting the emphasis on impairments, rather than focussing on activities.

Physiotherapy students at UCT spend five weeks treating children with disabilities in their 3<sup>rd</sup> year of study. In 2009 the students were required to use the ICF framework overtly in the paediatric clinic for the first time. They were required to refer to the diagram outlining the interactions between the components to assist in planning of assessment. They were expected to use the framework to identify the child's main problems, identify the interaction between the ICF components and plan appropriate treatment to address his or her needs.

### Aim of the study:

To determine if the overt use of the ICF resulted in a more holistic assessment and treatment plan.

## Acknowledgments

Pam Versfeld and Marlette Burger for doing the independent grading of the clinical assessment forms.

## Methods & Materials

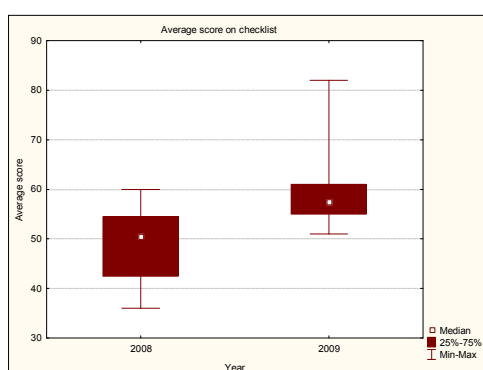
The study entailed a retrospective audit of student assessments based on a sample of convenience.

**Sample:** 2008 and 2009 students were asked to submit an assessment of a child with disability.

**Instrumentation:** A checklist was developed that required an experienced physiotherapy clinician to grade the student's assessment on such items as the appropriateness of subjective information recorded, the details of the impairments and functional limitations and the extent to which the student had considered contextual factors such as parental and peer support. These grades were then summed to give an overall score. In addition, an overall impression score was also awarded. The instrument was tested for reliability and adapted until there was 100% agreement between the two raters.

**Procedure:** Two physiotherapist clinicians experienced in both teaching and assessing students were approached to score the student assessments. They were not informed of the aim of the study and the ICF was not mentioned.

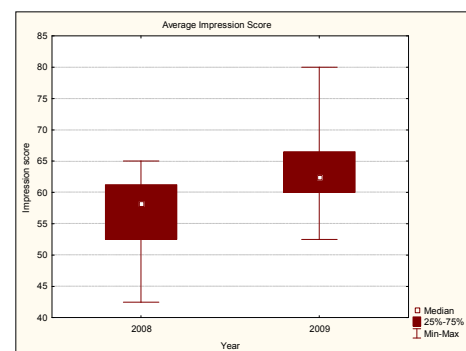
**Data analysis:** The mean of scores given by the two assessors were used as the outcome measures. As the data were ordinal non-parametric tests were used to compare the 2008 and the 2009 students. As there may have been bias with regards to the students who submitted assessments, the two groups were also compared with regard to their average marks for all clinical rotations not simply the paediatric block.



## Results

The 2008 group submitted 12 assessments and the 2009 submitted 11. The distribution of conditions included cerebral palsy, spina bifida and muscular dystrophy. There was no difference in the distribution of conditions across the two groups. There was no difference in the median scores awarded to students across the different clinical blocks and it appeared that the two groups had similar clinical ability.

However, there was a significant difference in the median and the rank ordering of both the total score based on the checklist and the general impression score.



## Conclusions

The use of the ICF did not result simply in the inclusion of more relevant ICF data, with regard to the child's limited participation in age-appropriate activities, but overall the assessments were more comprehensive and better able to identify the extent of the children's problems.

In contrast, lectures regarding the use of the ICF did not appear to bring about the same change in student performance.

The use of the ICF framework for assessment appears to encourage the student to problem solve at each step of the assessment, to draw links between the various components of the ICF framework and thereby to approach the management of children more holistically.