



# Disability versus Functioning operationalization: results from a field trial on ICF-based informatic tools

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**Abstract** The sample of 213 patients was considered to analyse positive and negative interactions between individual and EF, focusing also on their different levels. An analysis of EF role (barrier/facilitator) in AP chapters was firstly conducted. Youngers showed serious problems in activities of chapter d1, while MHS patients in activities of chapter d7. Chapters d2 and d7 presented the worst situation in terms of percentage of patients with a negative interaction. However the analysis pointed out that functioning and disability coexist in the same person and in the same population.

## Introduction

In 2011, a field trial using a new electronic ICF-based functioning/disability assessment protocol (VILMA/FABER) was carried out in the Friuli Venezia Giulia Region (1). A proposal for the operationalization of the disability and functioning constructs based on the analysis of Environmental Factors (EF) roles in the Activities and Participation (AP) domains is presented here.

## Methods & Materials

A sample of 213 outpatients was enrolled (mean age 34, range 1-92): 41.8% female and 18.8% younger than 18 years. The subsamples of those aged less than 18 (53 patients) and of those in charge to mental health services (MHS) (51) were separately considered also. Descriptive analysis allowed an initial exploration of some aspects of the EF citation frequency and of EF roles in AP domains. Whenever an EF is coded it becomes interesting to analyse performance qualifier value to verify a negative EF-individual interaction (disability) or a positive one (functioning). The analysis of performance qualifier allowed also to describe different levels of such interactions: *positive interaction* (performance qualifier 0), *negative interaction* (performance qualifier 1-4), *alarming negative interaction* (performance qualifier 3-4), and *absolute negative interaction* (qualifier 4).

## Results

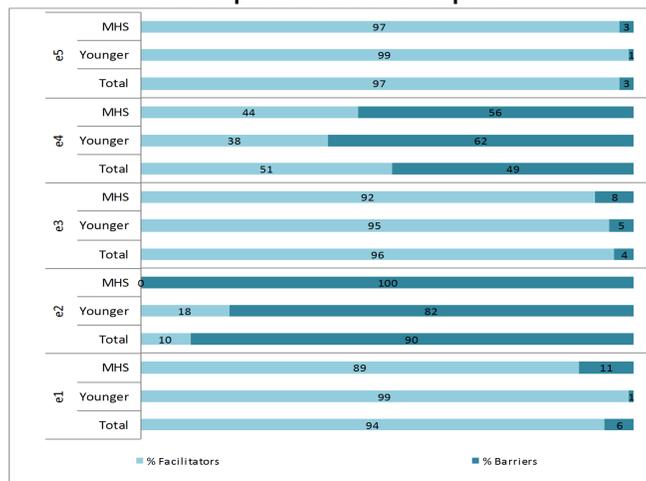
The most coded EF, related to AP items, were: “immediate family” (e310), “health professionals” (e355) and “general social support services, systems and policies” (e575), both in the whole sample and in the subgroup of younger patients, “products or substances for personal consumption” (e110) in the MHS patients subsample (Table 1).

**Table 1 – Main coded EF for AP categories in the whole sample and in the two subsamples.**

Environmental factor - EF	TOTAL	Younger than 18	MHS patients
e310 Immediate family	3431	1319	288
e575 General social support services, systems and policies	1609	496	275
e355 Health professionals	1477	349	702
e340 Personal care providers and personal assistants	1395	249	292
e110 Products or substances for personal consumption	1338	154	743
e360 Other professionals	1275	250	113
e580 Health services, systems and policies	1038	308	416
e570 Social security services, systems and policies	531	185	43
e120 Products and technology for personal indoor and outdoor mobility and transportation	394	124	11
e115 Products and technology for personal use in daily living	356	152	8

Analysis of the EF role related to AP categories (facilitators/barriers) pointed out that EF in chapters e1, e3 and e5 were more frequently coded as facilitators (94%, 96% and 97%, respectively), while those in e2 were generally coded as barriers. These results were confirmed in the subsamples (Figure 1). EF were generally coded as facilitators in AP chapters; however chapter d7 showed the highest percentage of EF coded as barriers, both for the whole population and for the younger (10% and 11%), while d4 for MHS patients (19%).

**Figure 1 – Percentages of citations as facilitator/barrier in AP categories, distinction by EF chapters and subsamples.**



EF are coded mainly in chapters d4 and d5 for the whole population, in chapters d1 and d4 for the younger group and in chapter d2 for MHS patients. Considering only AP items with some coded EF, most of the patients in the younger subgroup had *positive interactions* (performance qualifier 0) in chapters d5, d6 and d8, while the highest percentages of persons with *positive interactions* in the MHS subgroup were in d1, d5 and d6.

In the younger subsample, high percentages of persons with *negative interactions* (performance qualifier 1-4) were seen in chapters d1, d2, d3, d7 and d8, while in the MHS patients these resulted more frequent in items within d2 and d7. Persons with *alarming negative interactions* resulted still more frequent in chapters d1 and d4, among the younger, and in chapters d7 and d8, among MHS patients. Persons with *absolute negative interactions* presented equally high percentages in items of d3, d5 and d8 chapters, among the younger and in chapters d7 and d8, among MHS patients (see Figure 2). Figure 2 presented also the weighted means (mean of proportion of each type of interaction, weighted by the number of coded categories of every chapter), for the whole population and the subgroups. In the younger than 18 years subsample, the proportions of positive, negative, alarming negative and absolute negative interactions were higher than those of MHS patients; the younger had more difficulties than the other subsample but, at the same time, they had a higher proportion of persons without difficulty.

**Figure 2 – Proportions of persons with positive interactions, negative interactions, alarming negative interactions and absolute negative interactions (whole sample and subsamples), distinction by AP chapters and the weighted mean over them.**



## Conclusions

The comparison of the percentages of *negative* and *alarming negative* assessed milder problems in activities of chapters d2 and d3 and more serious problems in activities of chapter d1, for the younger patients. The MHS patients had mild problems in activities of chapters d2 and more serious problems in activities of chapter d7. The analysis showed also that the chapters presenting the worst situation in terms of negative interaction, were d1, d2, d3 and d7 for the younger group and d2 and d7 for MHS patients. In these chapters, in fact, more than the 74% of the younger and the 78% of MHS patients had a negative interaction. Chapters presenting the best situation in terms of positive interaction were d5 and d6, for the younger patients: the 57% and the 64% of them had at least one AP item with performance qualifier 0. However the percentages of people with these types of interactions overlap each other, showing that functioning and disability coexist in the same person and in the same population.

## References

- Frattura et al, ICF implementation in regional policies: the case of the Friuli Venezia Giulia Region, Italy, Who-FIC Network Annual Meeting, Cape Town 2011

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